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Alberta
TRANSPORTATION
AND UTILITIES

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Alberta
TRANSPORTATION
AND UTILITIES

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The Honourable
W. Helen Hunley
Lieutenant-Governor
Province of Alberta

Madam:

I have the honour to submit to you the Annual Report of Alberta Transportation and Utilities for the fiscal year ending March 31, 1989.

Allen "Boomer" Adair

Allen "Boomer" Adair
Minister of Transportation
and Utilities

Significant progress was again made in the fiscal year ending March 31, 1989 in the development of Alberta's transportation systems and utilities initiatives.

The Urban Transportation Program was given a one year extension to cover this fiscal year and approximately $120 million was allocated to Alberta cities during this time. On October 1, 1988 a new three year Alberta Cities Partnership Program was announced allocating $500 million to cities over the life of the program. This program commenced April 1, 1989. The four grant programs which provided funding in this fiscal period were: Basic Capital, Major Continuous Corridors and Primary Highway Connectors (MCC/PHC), Public Transit Operating and Primary Highway Maintenance. In the City of Medicine Hat a new segment of the Trans-Canada Highway was officially opened in June 1988 as well as the Medicine Hat Transit Terminal. Funding was provided from the major continuous corridors portion of the MCC/PHC and Basic Capital Grants respectively. Substantial construction occurred on Edmonton's Outer Ring Road under the primary highway connectors portion of the MCC/PHC Grant as well as the completion of the 82 Street/Yellowhead Trail Interchange in Edmonton under the major continuous corridors portion of this same grant. Considerable work was also done under the Basic Capital Grant on extensions to Calgary and Edmonton's LRT systems.

Approximately $7 million was provided under the Towns and Villages Streets Assistance Program. A new six year program was announced in February 1989 allocating approximately $75 million under the new Streets Improvement and Community Safe Streets Program which commenced April 1, 1989. Funding under this program is provided for capital construction projects such as: street grading, gravelling, base course, paving, concrete sidewalks, curbs and gutters, storm sewers, street lighting and various other projects.

During the 1988/89 fiscal year $582 million was expended on the construction and maintenance of provincial roadways.

Highlights of the 1988/89 transportation and construction season were:

- The widening of Highway 2 between Red Deer and Airdrie continued as well as the commencement of widening on Highway 63 from Wandering River to Fort McMurray.
- Major twinning work continued on the Yellowhead Highway (Highway 16) and the Trans-Canada Highway (Highway 1). In this reporting period construction was completed on approximately 706 kilometres of which approximately 119 kilometres were under the twinning program.
- Construction was started on the main access road to the Peace River Pulp Mill (Daishowa).
- Once again progress was made under the Pavement Rehabilitation Program in the restoration of older highway pavement at an approximate cost of $36 million resulting in approximately 485 kilometres of paved highway restored.
- Site development and landscaping was completed for the new High Level Air Terminal Building.
- Airports at Beaverlodge and Rimbey were officially opened in the summer of 1988.
- Major bridge structures were completed on:
  - Castle River, west of Pincher Creek on SH 507
  - Little Bow River, west of Carmangay on Highway 23
  - Bald Mountain Creek, south of Grande Prairie
  - Henderson Creek near the British Columbia border
  - Beaverlodge River, northwest of Beaverlodge.
- Secondary highway network improvements continued to be a major priority with local governments. Over $92 million was expended on approximately 921 kilometres of highway under the Secondary Highways Program.

Highlights of other departmental initiatives during 1988/89 were:

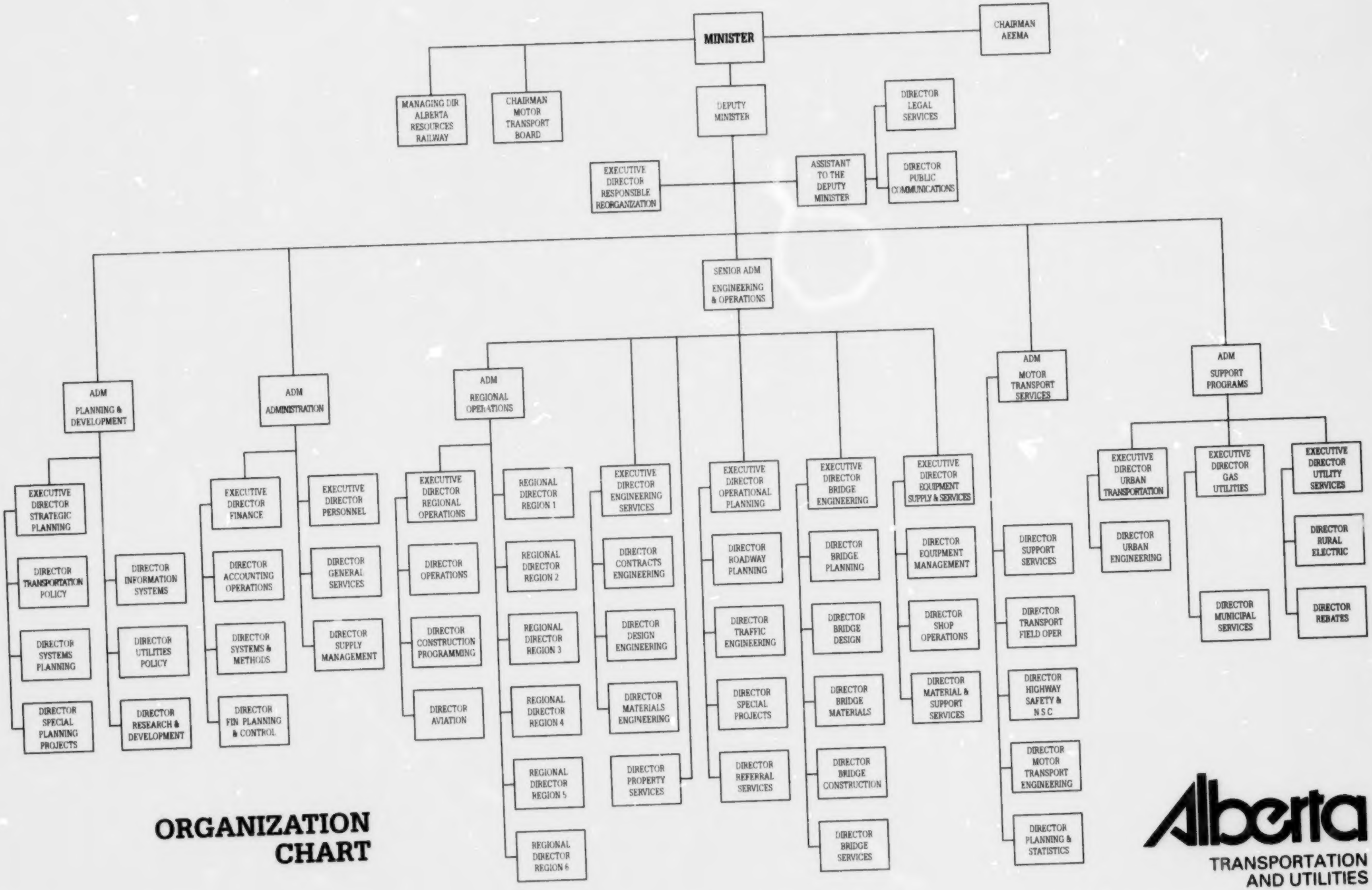
- The Small Power Research and Development Act was passed and as a result the Small Power Research and Development Program commenced on October 1, 1988.
- The Henry Kroeger Water Services Commission project was completed and went into operation in 1988.
- A significant role was played in the implementation of the National Safety Code (NSC) by the initiation of a public information campaign. A major component of the campaign was the provision of a toll-free hotline to respond to industries' queries on the changes.
- Development was completed on a proposal to twin the Export Highway (Highways 2, 3 and 4) connecting to the U.S. Border.

As in the past, Alberta Transportation and Utilities' employees have continued to successfully meet the challenges presented by the ongoing trend to downsize expenditures and streamline procedures and staffing complements.

Alberta Transportation and Utilities remains committed to providing Albertans with an efficient, integrated transportation system for the movement of goods and people and to enhancing the availability and affordability of utilities services which are safe, efficient and effective.

HAlton

HARVEY M. ALTON
Deputy Minister


MINISTER
CHAIRMAN AEEMA
MANAGING DIR ALBERTA RESOURCES RAILWAY
CHAIRMAN MOTOR TRANSPORT BOARD
DEPUTY MINISTER
DIRECTOR LEGAL SERVICES
DIRECTOR PUBLIC COMMUNICATIONS
ASSISTANT TO THE DEPUTY MINISTER
EXECUTIVE DIRECTOR RESPONSIBLE REORGANIZATION
SENIOR ADM ENGINEERING & OPERATIONS
ADM PLANNING & DEVELOPMENT
EXECUTIVE DIRECTOR STRATEGIC PLANNING
DIRECTOR TRANSPORTATION POLICY
DIRECTOR SYSTEMS PLANNING
DIRECTOR SPECIAL PLANNING PROJECTS
DIRECTOR INFORMATION SYSTEMS
DIRECTOR UTILITIES POLICY
DIRECTOR RESEARCH & DEVELOPMENT
ADM ADMINISTRATION
EXECUTIVE DIRECTOR FINANCE
DIRECTOR ACCOUNTING OPERATIONS
DIRECTOR SYSTEMS & METHODS
DIRECTOR FIN PLANNING & CONTROL
EXECUTIVE DIRECTOR PERSONNEL
DIRECTOR GENERAL SERVICES
DIRECTOR SUPPLY MANAGEMENT
ADM REGIONAL OPERATIONS
EXECUTIVE DIRECTOR REGIONAL OPERATIONS
DIRECTOR OPERATIONS
DIRECTOR CONSTRUCTION PROGRAMMING
DIRECTOR AVIATION
REGIONAL DIRECTOR REGION 1
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EXECUTIVE DIRECTOR ENGINEERING SERVICES
DIRECTOR CONTRACTS ENGINEERING
DIRECTOR DESIGN ENGINEERING
DIRECTOR MATERIALS ENGINEERING
DIRECTOR PROPERTY SERVICES
EXECUTIVE DIRECTOR OPERATIONAL PLANNING
DIRECTOR ROADWAY PLANNING
DIRECTOR TRAFFIC ENGINEERING
DIRECTOR SPECIAL PROJECTS
DIRECTOR REFERRAL SERVICES
EXECUTIVE DIRECTOR BRIDGE ENGINEERING
DIRECTOR BRIDGE PLANNING
DIRECTOR BRIDGE DESIGN
DIRECTOR BRIDGE MATERIALS
DIRECTOR BRIDGE CONSTRUCTION
DIRECTOR BRIDGE SERVICES
EXECUTIVE DIRECTOR EQUIPMENT SUPPLY & SERVICES
DIRECTOR EQUIPMENT MANAGEMENT
DIRECTOR SHOP OPERATIONS
DIRECTOR MATERIAL & SUPPORT SERVICES
ADM MOTOR TRANSPORT SERVICES
DIRECTOR SUPPORT SERVICES
DIRECTOR TRANSPORT FIELD OPER
DIRECTOR HIGHWAY SAFETY & N S C
DIRECTOR MOTOR TRANSPORT ENGINEERING
DIRECTOR PLANNING & STATISTICS
ADM SUPPORT PROGRAMS
EXECUTIVE DIRECTOR URBAN TRANSPORTATION
DIRECTOR URBAN ENGINEERING
EXECUTIVE DIRECTOR GAS UTILITIES
DIRECTOR MUNICIPAL SERVICES
EXECUTIVE DIRECTOR UTILITY SERVICES
DIRECTOR RURAL ELECTRIC
DIRECTOR REBATES

ORGANIZATION CHART

Alberta
TRANSPORTATION
AND UTILITIES

CHAIRMAN, MOTOR TRANSPORT BOARD - Responsible for managing the regulatory system governing intra and extra-provincial transportation within the framework of the Alberta Motor Transport Act and as delegated to the Board by the Federal Motor Vehicle Transport Act (1987) in the public interest.

MANAGING DIRECTOR, ALBERTA RESOURCES RAILWAY - Responsible for revenues generated from railway usage. Makes annual assessment on required railway maintenance.

CHAIRMAN, ELECTRIC ENERGY MARKETING AGENCY - Plans, directs, organizes, controls and evaluates the activities of the Agency, recommends policy and legislative changes, liaises with departments and related industries in carrying out the Agency's legislative mandate, and is an observing member of the Electric Utility Planning Council.

LEGAL SERVICES - Responsible for the provision of all required legal services to the department through seconded Attorney General's Department employees.

DIRECTOR, PUBLIC COMMUNICATIONS - Responsible for providing public relations counsel and communications services sustaining departmental policies, programs and activities.

ASSISTANT DEPUTY MINISTER, PLANNING AND DEVELOPMENT - Responsible for providing leadership and co-ordination for the development of transportation and utilities policies, programs and plans, and for the application of new technologies and information systems in departmental operations. The overall purposes are to provide recommendations to the government and direction to the department to meet the challenges and opportunities of a changing environment in a manner that support government policy and departmental objectives.

EXECUTIVE DIRECTOR, STRATEGIC PLANNING - Responsible for providing overall direction for planning for the department, for the development and evaluation of transportation policies and programs, and for the long-range planning of an integrated multi-modal Alberta transportation system.

DIRECTOR, TRANSPORTATION POLICY - Responsible for providing management, co-ordination and analytical expertise for the development of recommendations for transportation policies and programs, and for departmental strategic plans.

DIRECTOR, SYSTEMS PLANNING - Responsible for providing management, co-ordination and system planning expertise for the development of recommendations for the transportation system, such as changes to the classification of roads, based on undertaking local, regional and provincewide transportation systems studies and plans.

DIRECTOR, SPECIAL PLANNING PROJECTS - Responsible for providing project management, co-ordination and analytical expertise for major planning initiatives requiring departmentwide action, such as direction of a project team charged with developing a long range transportation systems plan.

DIRECTOR, UTILITIES POLICY - Responsible for providing direction, co-ordination and analytical expertise for the development and evaluation of policies and programs affecting electric and gas utility development and consumer prices.

DIRECTOR, RESEARCH AND DEVELOPMENT - Responsible for planning and managing applied research and technology transfer programs, which are aimed at implementing technological solutions that enhance the efficiency and effectiveness of departmental construction, maintenance and other operations.

DIRECTOR, INFORMATION SYSTEMS - Responsible for planning and managing the application of electronic data processing (EDP) systems and hardware in the departmental operations, which are aimed at meeting departmental information requirements and enhancing the efficiency and effectiveness of departmental information processing and decision making.

ASSISTANT DEPUTY MINISTER, ADMINISTRATION - Responsible for the provision and operation of the various support services that are required for the operation of all divisions of the department. These include financial services, personnel management, and general services.

DIRECTOR, GENERAL SERVICES - Responsible for the provision of departmental support services, records services, library services, facilities management and insurance services.

EXECUTIVE DIRECTOR, FINANCE - Responsible for the design, implementation and control of financial systems, for the co-ordination and preparation of the annual budget, for the ongoing monitoring of expenditures against the budget and for the keeping of financial records, preparation of financial information for management use, processing of payments and recording and collecting of amounts owed to the department.

DIRECTOR, ACCOUNTING OPERATIONS - Responsible for establishing and managing the department's accounting functions, ensuring effective control over departmental liabilities, revenues, accounts receivable, securities and deposits as well as maintaining the records and procedures which provide accurate financial and management reporting for the Transportation Revolving Fund.

DIRECTOR, FINANCIAL SYSTEMS AND METHODS - Responsible for definition, development and implementation of integrated financial systems, policies and procedures for the department, their interaction with central agency systems and ongoing training and support of systems users.

DIRECTOR, FINANCIAL PLANNING AND CONTROL - Responsible for the preparation and assembly of the department's budget. Provides executive level analysis of expenditures versus budget. Liaises with Alberta Treasury throughout the year on all budget and expenditure related matters.

EXECUTIVE DIRECTOR, PERSONNEL - Responsible for the recruitment, classification, payroll benefits, labour relations, occupational health and safety, career and organizational development for all department staff.

SENIOR ASSISTANT DEPUTY MINISTER, ENGINEERING AND OPERATIONS - Responsible for senior direction, policy formulation and co-ordination of the operational planning, engineering services, property acquisition, internal equipment support and regional operations functions for the development and delivery of the provincial roadway, bridge and airport construction and maintenance programs.

ASSISTANT DEPUTY MINISTER, REGIONAL OPERATIONS - Provides senior direction in all aspects of construction programming and operations; budget/program preparation, financial control, and information preparation. Responsible for operation and maintenance of provincial highway system, airports, campsites, ferries, and improvement district road networks. Provides input and direction for short and long-range planning, and occupational health and safety.

REGIONAL DIRECTOR, LETHBRIDGE - Senior department representatives in the region occupying the southernmost 150-250 kilometres of the province. Responsible for delivery of all Transportation programs. The prime contact with the public, municipal governments, private industry, and other government agencies in the region.

REGIONAL DIRECTOR, AIRDRIE - Senior department representative in the region extending west to British Columbia and the national parks boundaries to Saskatchewan, and north and south between the Fifth and Ninth Baselines. Responsible for delivery of all Transportation programs. The prime contact with the public, municipal governments, private industry, and other government agencies in the region.

REGIONAL DIRECTOR, RED DEER - Senior department representative in the region extending for 100-200 kilometres north and south across central Alberta. Responsible for delivery of all Transportation programs. The prime contact with the public, municipal governments, private industry, and other government agencies in the region.

REGIONAL DIRECTOR, ST. PAUL - Senior department representative in the northeast quadrant of the province. Responsible for the delivery of all Transportation programs. The prime contact with the public, municipal governments, private industry, and other government agencies in the region.

REGIONAL DIRECTOR, BARRHEAD - Senior department representative in the region west of Edmonton to the national park boundary, and north of Swan Hills and Calling Lake. Responsible for delivery of all Transportation programs. The prime contact with the public, municipal governments, private industry, and other government agencies in the region.

REGIONAL DIRECTOR, PEACE RIVER - Senior department representative in the area north and west of Lesser Slave Lake. Responsible for the delivery of all Transportation programs. The prime contact with the public, municipal governments, private industry, and other government agencies in the region.

EXECUTIVE DIRECTOR, REGIONAL OPERATIONS - Supervises and directs the head office divisional staff to ensure efficient management of all departmental programs implemented in the six provincial regions. Conducts and directs information preparation on important division and department issues and policies.

DIRECTOR, OPERATIONS - Responsible for establishing maintenance standards, and preparation and control of maintenance budget. Ensures equitable distribution of maintenance funds to the regions. Provides guidance to regional staff on operational problems, policy direction and interpretation. Responsible for provincial skid resistance program, traffic safety installations, seeding programs, and oversees operation of campgrounds, rest areas and ferries.

DIRECTOR, CONSTRUCTION PROGRAMMING - Directs the development of the department's five year construction programs and the scheduling, preparation, and management of the department's annual capital construction programs, and related support services. Overall department responsibility for budget and financial control co-ordination.

DIRECTOR, AVIATION - Responsible for overall management of the Alberta Airport Development Program and establishment of maintenance standards for provincial airport facilities. Maintains liaison with other levels of government respecting aviation matters and provides aviation expertise for information requirements within and outside of the department.

EXECUTIVE DIRECTOR, ENGINEERING SERVICES - Responsible for providing co-ordinated engineering standards and services for all departmental programs in the areas of contracts, design and materials.

DIRECTOR, CONTRACTS ENGINEERING - Responsible for contract administration policy, contract preparation, tendering and final payment auditing, settlement of third party and contractors' construction claims, administration of field project reviews and contract related engineering support services.

DIRECTOR, DESIGN ENGINEERING - Responsible for the development, application and monitoring of geometric design standards and the provision of design engineering services supporting all primary highway, secondary highway and airport construction programs.

DIRECTOR, MATERIALS ENGINEERING - Responsible for providing a wide range of engineering, technical and administrative materials-related policies, standards and services and the application and monitoring of surfacing and geotechnical design standards for all departmental construction and maintenance programs.

DIRECTOR, PROPERTY SERVICES - Responsible for monitoring and acceptance of right-of-way purchase agreement and payments, initiation of expropriation procedures, managing land inventory, co-ordinating municipal road closure legislated requirements, and providing legal survey services for departmental programs.

EXECUTIVE DIRECTOR, OPERATIONAL PLANNING - Responsible for co-ordinating Roadway Planning, Traffic Engineering and Roadside Development throughout the province.

DIRECTOR, ROADWAY PLANNING - Responsible for location studies and functional design for new and upgraded highways throughout the province.

DIRECTOR, TRAFFIC ENGINEERING - Responsible for providing a wide range of services relating to traffic management and control, and traffic data collection, analysis, forecasting and interpretation for use in system planning design, construction, and maintenance.

DIRECTOR, SPECIAL PROJECTS - Co-ordinates the interdepartmental and municipal collaboration activities in the planning, design and implementation stages of common or complimentary transportation facility projects and identifies deficiencies/advancements pertaining to urban geometric design standards.

DIRECTOR, REFERRAL SERVICES - Responsible for the approval of all utility installations, along and crossing primary highways and 900 Series Secondary Highways. Provides input, direction, procedures and monitoring pertaining to the application of the Roadside Development function within the department.

EXECUTIVE DIRECTOR, BRIDGE ENGINEERING - Responsible for the standards, direction, and performance of the department's bridge engineering, and for planning and delivery of the major bridge construction and maintenance programs.

DIRECTOR, BRIDGE PLANNING - Responsible for the preliminary engineering, hydrotechnical design, and planning and programming functions for all major rural bridges throughout the province.

DIRECTOR, BRIDGE DESIGN - Responsible for the provision of structural analysis and design for new bridges, bridge components, strengthening and renovation.

DIRECTOR, BRIDGE MATERIALS - Responsible for material supply, bridge materials contract administration, research and development and specialized inspection programs on the existing bridge system.

DIRECTOR, BRIDGE CONSTRUCTION - Responsible for major bridge construction by contract, construction management, budget monitoring, and arbitration of third party and contractors' construction claims.

DIRECTOR, BRIDGE SERVICES - Responsible for co-ordinating/implementing maintenance and standard bridge construction programs, bridge inspection management and direction of construction and field support staff.

EXECUTIVE DIRECTOR, EQUIPMENT SUPPLY AND SERVICES - Responsible for the planning, co-ordination and delivery of fleet, materials supply and shops services to the department through the Transportation Revolving Fund.

DIRECTOR, EQUIPMENT MANAGEMENT - Responsible for the engineering design, specification, procurement, modification, maintenance planning, inventory, distribution, replacement, disposal and rental cost recovery of the 6000 unit equipment fleet through the Transportation Revolving Fund "Fleet" enterprise.

DIRECTOR, SHOP OPERATIONS - Responsible for the servicing and repair of the equipment fleet through the department's 28 decentralized repair shops and private sector support; provides custodial and distribution services for materials; provides custom manufacturing including highway signage. Manages the Apprenticeship Training Program.

DIRECTOR, MATERIALS AND SUPPORT SERVICES - Responsible for the acquiring, controlling and distributing of construction and maintenance materials for program branches plus parts and components for repair shops through the Transportation Revolving Fund "Stores" enterprise. Provides centralized systems support, payroll and policy administration, budgeting, accounts payable and records management for the branch.

ASSISTANT DEPUTY MINISTER, MOTOR TRANSPORT SERVICES - Responsible for the provision of effective, efficient on/off highway user service that provides a safe operating environment while protecting the highway infrastructure in support of the social and economic needs of the public.

DIRECTOR, SUPPORT SERVICES - Responsible for providing administrative support services within Motor Transport Services including Facilities Management, Financial Administration, Communications and Training, Standards, Maintenance and Liaison, and the National Safety Code and Operating Authority Administration.

DIRECTOR, TRANSPORT FIELD OPERATIONS - Responsible for the development and implementation of new programs, policies and directives for ensuring public vehicle compliance with those Provincial and/or Federal Statutes and Regulations affecting the movement of people and goods on Alberta's highways.

DIRECTOR, NATIONAL SAFETY CODE AND TRANSPORTATION SAFETY - Responsible for the National Safety Code in Alberta and the development, administration and co-ordination of a multi-disciplinary program of transportation safety services aimed at reducing the number of traffic collisions and fatalities in Alberta.

DIRECTOR, PLANNING AND STATISTICS - Responsible for Motor Transport Services business analysis, policy development, operations research, resource management and statistical services.

DIRECTOR, ENGINEERING SERVICES - Responsible for establishing road bans, developing weight and dimension regulations, policies and procedures for overweight and over-dimensional loads and controlling their movement on Alberta's highways, as well as providing an equipment consulting service for the commercial vehicle industry and other interest groups.

ASSISTANT DEPUTY MINISTER, SUPPORT PROGRAMS - Plans, develops, controls and directs the implementation of provincial policies and programs related to urban transportation, municipal water, sewage and roadway infrastructure, rural water transmission, rural electrification, rural and private utilities in the natural gas field and heating fuel rebate initiatives, and recommends policy, program and legislative changes.

EXECUTIVE DIRECTOR, URBAN TRANSPORTATION - Responsible for the overall direction and control of the Urban Transportation Program. Directs and controls the financial, technical and administrative aspects of the program and establishes operating strategies for program management.

DIRECTOR, URBAN ENGINEERING - Administers the financial and technical aspects of the Urban Transportation Program and maintains ongoing liaison with elected urban and government officials.

EXECUTIVE DIRECTOR, GAS UTILITIES - Responsible for the direction and control of a wide range of activities affecting all aspects of the provincewide gas utility industry, including technical, regulatory and administrative matters. Provides direction and control of Gas Alberta Operating Fund.

EXECUTIVE DIRECTOR, UTILITY SERVICES - Plans, develops and directs a wide range of provincial policies and programs relating to primary agricultural support, heating fuel rebates and grants, senior citizen assistance, rural water facilities, and rural electrification.

DIRECTOR, REBATES - Responsible for developing and delivering rebate programs as follows: the Natural Gas Price Protection Plan and Primary Agricultural Producers Rebate Program for natural gas, the Remote Area Heating Allowance Program for propane and heating oil, and the Senior Citizens Home Heating Protection Program.

DIRECTOR, RURAL ELECTRIC - Responsible for developing and delivering loan programs, for new farm electrical services and for rural electrification association (REA) capital rebuild. Manages grant programs to assist rural electrification in isolated areas and in fulfilling the statutory duties of the Director of Rural Electrification Associations, provides regulatory, financial and other advisory services to REA's.

DIRECTOR, MUNICIPAL SERVICES - Plans, directs, controls and evaluates the application of provincial policies and programs relating to the provision of financial assistance for municipal water and sewage facilities, transportation projects for towns, villages, summer villages, municipal district, counties and special areas, and administers utilities officers assistance to rural municipalities.

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ADMINISTRATION DIVISION

D.J. Porter
Assistant Deputy Minister

Financial Services Branch 6
R. James
Executive Director

General Services Branch 4
E. Tywoniuk
Director

Personnel Management Branch 12
Vacant
Executive Director

Transportation Revolving Fund 8

The 1988/89 fiscal year marked the beginning of a new look for the *Administration Division* with the final amalgamation of the Alberta Transportation and Utilities divisions and the reorganization of functions within the department. For comparisons, outlined below is a "before and after" view of the organization structure by section for this division:

BEFORE APRIL 1, 1988	**AFTER APRIL 1, 1988**
▪ Equipment, Supply and Services	▪ Financial Services
▪ Financial Services	▪ Personnel Services
▪ Personnel Management	▪ General Services
▪ Information Services	▪ Supply Management.
▪ Utilities Administrative Services.	

To streamline the administrative services to the department a realignment of functions was implemented as follows:

- Information Services Branch with the exception of the Records Management Section became a branch within the new Planning and Development Division
- Equipment, Supply and Services except for Support Services and Facilities Planning Sections moved to the new Engineering and Regional Operations Division
- Utilities Administrative Services amalgamated with the various similar components within Transportation in the final union of Alberta Transportation and Utilities
- an Insurance Services Section was developed from the merger of resources from the Equipment Supply and Services, Construction Programming, and Financial Services Branches to become a section within the General Services Branch
- the Transportation Library, formerly a section within Research and Development Branch of the previous Engineering Division, relocated to the Administration Division.

This reorganization of functions resulted in the formation of a General Services Branch with responsibilities designated to the following sections:

- Support Services
- Facilities Planning
- Library Services
- Records Services
- Insurance Services.

Details of each section's responsibilities are provided within the report for the General Services Branch.

Alterations to the organization structure of the Financial Services and Personnel Services branches were the result of the amalgamation of the two departments and these changes are outlined in the following sections of this report.

With the rearrangement of responsibilities, the Administration Division is able to provide support services in an effective and efficient manner enhancing the delivery capabilities of those divisions responsible for the services and products of the department. The division in providing this support is responsible for ensuring that all legislative and administrative policy requirements are met.

General Services Branch

With the department reorganization in April 1988, the General Services Branch was formed as a centralized agency to provide efficient and cost effective support services to the department program branches in the areas of office supplies and services, records planning, facilities planning, library services and insurance services.

Support Services

This section provides departmental support services in areas of office supplies, mail and courier, duplicating as well as parking administration.

An increased demand for service was experienced this year due to the amalgamation of Alberta Transportation and Utilities. These additional demands were met with existing resources. The most significant volume increases were noted in:

office supplies	19 per cent
shipping	55 per cent
volume copying	18 per cent

In response to user demands an additional service was provided with the acquisition of a new colour copier by the Duplicating Centre.

The Parking Program at Twin Atria was reviewed and revised with new terms of reference. This resulted in access to parking privileges being made available to a greater number of employees.

Facilities Planning

Facilities Planning supports departmental operations through the provision of services aimed to enhance employee productivity through the establishment and maintenance of effective worksite arrangements. This support is provided from the following service platforms:

- Accommodation Planning Services encompasses a diverse range of activities ranging from worksite program planning, pre-development design concepts, construction supervision, and final physical relocation and support.
- Furniture and Telecommunication Service include the planning and supervision of the installation of appropriate telecommunications systems and the assessment and acquisition of worksite furniture supporting the effective performance of worker job activities.
- Facilities Maintenance Co-ordination Services are primarily aimed to support departmental operations housed in the Twin Atria Building. The purpose of the services provided are to ensure timely and effective delivery of day to day support by facility maintenance personnel, provided under contract by the facility owner.

Major Activities in 1988/89

- The physical merger of the former Transportation and Utilities occurred with the establishment of a common accommodation at the Twin Atria Building in Edmonton. The relocation of the Utilities' program staff involved the acquisition and development of new space within the Twin Atria as well as the realignment of existing accommodation.
- Several new workstation configurations were developed, tested and installed which were aimed to improve employee performance by a workstation layout which better supports work process flow.
- A new design was introduced for repair shop facilities to include drive-thru bays, hose-reel exhaust extraction units, overhead travelling cranes in the welding sections and provision of sufficient support space. Additionally exhaust extraction systems were upgraded in several existing maintenance and repair facilities. These applications contribute towards improved productivity of repair shop staff.
- Improvements to the major accommodation with the Twin Atria Building were also undertaken during the year. An independent air quality study was conducted in response to concerns from staff located in the fourth floor of this facility. Although the study has resulted in improvements, further studies are continuing.

Library Services

The department library continued to provide information services to all branches, regions and districts of the department, to other provincial government agencies, and to members of the public with an interest in or need for transportation and utilities information. Services included:

- responding to various types of requests for information
- conducting literature searches on various computerized database services with access to worldwide technical and business information
- keeping department staff up-to-date with recent articles through the current information scanning service
- circulating materials, including numerous items borrowed from North American libraries and information centres.

During 1988/89 the library continued to catalogue all new publications using the Online Computerized Catalogue. This activity increased the database significantly from 2800 items to over 7700 items which included books, reports, reprints, maps and audio-visual items. In addition in May 1988 public subscriptions were added to aid in renewals and routing information. By March 1989 this database also contained records for over 1000 technical journals, newsletters, newspapers and updating services received by the department. As a result of these accomplishments, the Alberta Transportation and Utilities Library is able to provide current and comprehensive data to serve the information needs of the department program branches from a broader information base and in a timely manner.

Records Services

Records Services is a departmental service to enhance the handling of public records. It establishes the policies, practices and procedures necessary to store, access and dispose of department records.

During the year activities included:

- relocation of 2057 cubic feet of records from the department's semi-active and active records to be archived to offsite storage or for destruction at the Alberta Records Centre, Alberta Public Works, Supply and Services
- analysis of 16 record systems was performed
- fourteen record systems conversions were started, of which four were completed, four are on hold and six are in progress
- amalgamation of the Records Services Sections of Alberta Transportation and Alberta Utilities.

Insurance Services

Insurance Services provides overall departmental control and facilitates the processing of all insurance resulting from departmental operations. Additionally it undertakes the development of annual inventory valuation reports of department assets for purposes of the overall government insurance program managed by Alberta Treasury.

As at March 31, 1989, the total valuation of department assets, which are located at 150 sites throughout the province, was in excess of $150 million.

Special Projects

Special Projects was formed late in 1988 to specifically develop a fixed asset inventory management system for the department. Preliminary research and a survey were conducted early in 1989 and by March 31, 1989, the initial system specifications for the Asset Inventory Management System (AIMS) developed. AIMS, when fully developed, will be a microcomputer based system used by department managers to track and report on administrative assets by branch, region, and district across the province. These assets will be categorized in three modules – office equipment, Electronic Data Processing (EDP) software, and furniture. It is expected that this system will be operational in part during 1989/90.

Financial Services Branch

The Financial Services Branch serves the department in a dual capacity. Of foremost importance is the timely provision of relevant operational and financial information which enhances the decision making capabilities of managers in the department. Secondly, the branch provides a controllership function which ensures compliance with financial policies, procedures and controls established by the Executive of the department and other government agencies.

The branch deals directly with the public at large and has made efforts this year to improve the quality of services that it provides. Improvement in service levels to all clients of the branch will continue to receive ongoing emphasis in the coming year.

Financial Planning and Control

A restructuring and expansion of Financial Planning and Control was completed during the year. The increased capabilities that now exist within the section have allowed the staff to improve the processes leading to the preparation of the annual budget and multi-year financial projections. The quality of this information has been enhanced as has communication both within the department as well as between the department and the Budget Bureau in Alberta Treasury. The creation of a financial analysis unit ensures that more timely and comprehensive information regarding current year expenditures and related information is provided to managers throughout the year. The section has assumed coding structure maintenance responsibilities related to the new governmentwide financial system called Central Financial System/Department Financial System (CFS/DFS) that was implemented January 1, 1989.

Financial Systems and Methods

Financial Systems and Methods continued with the development and implementation of the remaining modules of the Financial Reporting and Control System (FRACS) and altered the existing modules so that they were able to operate with CFS/DFS. The section prepared user manuals to support the implementation and use of CFS/DFS and undertook an extensive training program for users of the system. During the latter portion of the fiscal period, efforts were concentrated primarily on implementing the job cost reporting capabilities of FRACS and ensuring error free compatibility of FRACS and CFS/DFS.

Accounting Operations

A restructuring of individual responsibility of the staff within Accounting Operations was undertaken to accommodate the implementation of both CFS/DFS and the new modules of FRACS. Responsibilities such as data entry of financial documents, vendor file maintenance, document review and balancing system inputs with outputs, all previously performed by Alberta Treasury, have been incorporated into various staff assignments. Organizational arrangements were also revised to reflect appropriate internal controls given the new duties assumed.

BUDGET ESTIMATES, SPECIAL WARRANTS, TRANSFERS AND EXPENDITURES CLASSIFIED BY VOTE GENERAL REVENUE FUND

Year Ended March 31, 1989

(in 000's)

		Budget Estimates	Special Warrants	Transfers	Total Authorization	Actual Expenditures
Vote 1	DEPARTMENTAL SUPPORT SERVICES					
	Executive Services	$ 1 944	$ –	$ –	$ 1 944	$ 1 929
	Administrative Services	11 891	–	–	11 891	11 914
		13 835	–	–	13 835	13 843
Vote 2	CONSTRUCTION AND OPERATION OF TRANSPORTATION SYSTEMS					
	Program Support	37 772	400	38	38 210	39 059
	Improvement of Primary Highway System	194 263	5 000	(6 311)	192 952	185 126
	Improvement of Rural-Local Highways	123 988	(4 316)	9 363	129 035	135 328
	Financial Assistance for Rural-Local Highways	36 898	–	–	36 898	36 610
	Maintenance of Primary Highway System	72 503	–	(5 800)	66 703	68 286
	Maintenance of Rural-Local Highways	17 128	–	(500)	16 628	19 380
	Resource Roads Improvements	56 003	4 000	7 710	67 713	66 978
	Pavement Rehabilitation	40 046	–	(4 500)	35 546	35 686
	Construction and Maintenance of Airports	5 801	–	–	5 801	3 920
	Specialized Transportation Services	16 922	–	–	16 922	17 636
	Financial Assistance - Urban Transportation	122 952	–	–	122 952	122 808
		724 276	5 084	–	729 360	730 817
Vote 3	CONSTRUCTION AND OPERATION OF RAIL SYSTEMS	7 000	–	–	7 000	4 932
Vote 4	DEVELOPMENT AND SUPPORT OF UTILITIES SERVICES					
	Gas Utility Development and Support	19 648	–	–	19 648	16 567
	Heating Fuel Rebates	14 457	–	–	14 457	12 433
	Electric Utility Development and Support	1 655	–	–	1 655	1 216
	Water and Sewage Utility Development and Support	48 620	3 500	–	52 120	57 564
		84 380	3 500	–	87 880	87 780
Vote 5	ELECTRIC ENERGY MARKETING AGENCY	3 582	11 478	–	15 060	13 495
		$ 833 073	$ 20 062	$ –	$ 853 135	$ 850 867

BUDGET ESTIMATES, SPECIAL WARRANTS, TRANSFERS AND EXPENDITURES CLASSIFIED BY CONTROL GROUP GENERAL REVENUE FUND

Year Ended March 31, 1989

(in 000's)

	Budget Estimates	Special Warrants	Transfers	Total Authorization	Actual Expenditures
Manpower	$ 126 469	$ 250	$ –	$ 126 719	$ 128 157
Supplies and Services	447 746	4 834	(25)	452 555	452 037
Grants	245 359	14 978	25	260 362	261 728
Fixed Assets	13 454	–	–	13 454	8 900
Other	45	–	–	45	45
	$ 833 073	$ 20 062	$ –	$ 853 135	$ 850 867
Operating	$ 193 306	$ 11 478	–	$ 204 784	$ 197 510
Capital	639 767	8 584	–	648 351	653 357
	$ 833 073	$ 20 062	$ –	$ 853 135	$ 850 867

REVENUE CLASSIFIED BY SOURCE

Year Ended March 31, 1989

(in 000's)

	1989	1988
PAYMENTS FROM GOVERNMENT OF CANADA		
Yellowhead Highway Improvement Program	$ 5 000	$ 5 000
Other	629	539
	5 629	5 539
FEES, PERMITS & LICENCES		
Motor Transport Services	6 304	4 740
Airport Revenue	197	199
Road Allowance Leases	11	11
Snow Plowing Fees	41	36
	6 553	4 986

OTHER REVENUE		
Investment Income		
Interest on Advances	2	4
Refunds of Expenditures		
Refunds of prior year	1 284	1 617
Other	14 351	129
Sales of Assets		
Land	62	93
Other	45	14
Miscellaneous		
Rentals	67	113
Other	404	116
	16 215	2 086
Total Revenue	$ 28 397	$ 12 611

ALBERTA LEGISLATURE

OFFICE OF THE AUDITOR GENERAL

Auditor's Report

To the Minister of Transportation and Utilities

I have examined the balance sheet of the Transportation Revolving Fund as at March 31, 1989 and the statements of operations and surplus and changes in financial position for the year then ended. My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as I considered necessary in the circumstances.

In my opinion, these financial statements present fairly the financial position of the Fund as at March 31, 1989 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Donald D. Salmon
FCA
Auditor General

Edmonton, Alberta
August 17, 1989

STATEMENT A

BALANCE SHEET

As At March 31, 1989

	1989	1988
ASSETS		
Current:		
Accounts receivable	$ 14 559 434	$ 15 488 391
Inventories	14 725 920	14 481 677
	29 285 354	29 970 068
Fixed:		
Equipment	105 309 264	96 070 366
Less: Accumulated depreciation	61 169 581	59 276 537
	$ 44 139 683	$ 36 793 829
Systems development cost	2 170 564	1 787 538
	$ 46 310 247	$ 38 581 367
Assets held on behalf of the Department of Transportation and Utilities		
Gravel and related costs (Note 3)	15 484 068	13 605 890
Land	1 253 012	1 483 223
	$ 16 737 080	$ 15 089 113
	$ 92 332 681	$ 83 640 548
LIABILITIES AND SURPLUS		
Current:		
Accounts payable	$ 6 795 271	$ 4 754 892
Advances from the Province of Alberta	81 122 521	70 938 979
Surplus	4 414 889	7 946 677
	$ 92 332 681	$ 83 640 548

The accompanying notes are part of these financial statements.

STATEMENT B

STATEMENT OF OPERATIONS AND SURPLUS

For the Year Ended March 31, 1989

	1989	1988
REVENUE		
Rental	$ 31 925 689	$ 35 125 861
Inventory sales	17 781 968	19 791 147
Shop sales	2 812 575	2 607 842
	52 520 232	57 524 850
EXPENDITURE		
Rental equipment operating costs	20 602 204	20 594 816
Cost of inventory sales	17 118 596	17 997 108
Depreciation	8 103 707	7 859 162
Cost of shop sales	2 635 112	2 465 584
Overhead:		
Indirect labour	5 620 069	5 257 142
Administrative	745 050	221 787
Other	1 830 949	1 810 116
	56 655 687	56 205 715
	(4 135 455)	1 319 135
Gain on disposal of equipment	603 667	687 873
Net income (Loss) for the year	(3 531 788)	2 007 008
Surplus at beginning of year	7 946 677	5 939 669
Surplus at end of year	$ 4 414 889	$ 7 946 677

STATEMENT C

STATEMENT OF CHANGES IN FINANCIAL POSITION

For the Year Ended March 31, 1989

	1989	1988
OPERATING ACTIVITIES		
Cash from operations:		
Net income (loss) for the year	$ (3 531 788)	$ 2 007 008
Net charges (credits) to income which do not affect cash:		
Depreciation	8 103 707	7 859 162
Gain on disposal of equipment	(603 667)	(687 873)
	3 968 252	9 178 297
Changes in non-cash items:		
Decrease (increase) in accounts receivable	928 957	(5 594 106)
Decrease (increase) in inventories	(244 243)	3 196 667
Increase in accounts payable	2 040 379	170 321
	6 693 345	6 951 179
Changes in assets held on behalf of the Department of Transportation and Utilities		
Recovery of gravel and related costs	12 243 056	23 424 787
Recovery of land costs	1 729 957	9 820 796
Increase in gravel and related costs	(14 121 234)	(6 685 590)
Increase in land costs	(1 499 746)	(2 228 244)
	(1 647 967)	24 331 749
INVESTING ACTIVITIES		
Proceeds from equipment disposals	1 042 052	984 701
Purchase of equipment	(15 887 946)	(7 867 439)
Systems development costs	(383 026)	(1 437 788)
	(15 228 920)	(8 320 526)
Decrease (Increase) in Advances from the Province of Alberta	$ (10 183 542)	$ 22 962 402

NOTES TO THE FINANCIAL STATEMENTS

March 31, 1989

NOTE 1 AUTHORITY

The Transportation Revolving Fund operates under the authority of the Department of Transportation and Utilities Act, Chapter D-30, Revised Statutes of Alberta 1980, as amended.

The Fund's revenue is derived mainly from rentals and sales to the Department of Transportation and Utilities.

NOTE 2 SIGNIFICANT ACCOUNTING POLICIES

(a) INVENTORIES

Inventories are valued at the lower of cost and net realizable value.

(b) FIXED ASSETS

Fixed assets consist of rental and shop equipment and systems development costs and are recorded at cost.

Rental equipment is depreciated on a straight-line basis. The approximate useful life of major equipment categories is as follows:

Light trucks	4 or 5 years
Heavy trucks	7 or 10 years
Graders, tractors, loaders, trailers	10 or 15 years
Cranes	15 or 20 years

Shop equipment is depreciated on a 20 per cent declining balance method.

Systems development costs relate to the development of the equipment management computer system. These costs will be amortized commencing in the year that system development is fully completed.

(c) GRAVEL AND RELATED COSTS AND LAND

The Fund finances gravel and related costs and land used by the Department of Transportation and Utilities. Expenditures incurred for gravel and related costs and land are recoverable from the department.

Gravel and related costs are valued at cost less billings to the department.

Land is valued at cost less recoveries from third party rentals.

NOTE 3 GRAVEL AND RELATED COSTS

Gravel and related costs consist of the following:

	1989	1988
Gravel processing costs	$ 14 727 755	$ 13 193 390
Cost of gravel pits	756 313	412 500
	$ 15 484 068	$ 13 605 890

NOTE 4 ADMINISTRATIVE EXPENSES

Accommodation, repair shops, warehouse facilities, certain salaries and wages and other administrative expenses incurred in the administration of the Fund are borne by the General Revenue Fund. Accordingly, they are not reflected in these financial statements.

NOTE 5 COMPARATIVE FIGURES

The 1988 figures have been reclassified where necessary to conform to 1989 presentation.

NOTE 6 APPROVAL OF FINANCIAL STATEMENTS

These financial statements were approved by management.

Personnel Management Branch

The Personnel Management Branch provides expert human resource services designed to assist the timely and effective delivery of programs, by ensuring contemporary human resource policies and practices throughout the department. The services provided are organized functionally as follows:

- position classification
- recruitment and selection
- wage, salary and employee benefits administration
- occupational health and safety
- employee relations
- human resource planning, organizational design and employee development/training.

Major Activities in 1988/89

- Assisted in achieving departmental re-organization aimed to integrate the former separate departments of Alberta Transportation and Alberta Utilities. The assistance provided was in a number of forms including organizational design expertise, position restructuring and classification, employee redeployment counselling, employee retraining services, relocation assistance, and finally individual and group counselling.
- Reviews of certain internal procedures within the branch were undertaken in an effort to improve the quality of services provided to employees and branches of the department. Statistical process control measures were implemented to assist in the determination of areas of possible improvements and to measure the results of efforts undertaken. The notable accomplishments were:
    - payroll transactions resulting in late payments were reduced
    - direct contact with outside branch staff was increased.

  These efforts will be intensified in the next two years as the branch prepares itself and the organization for the future.
- Activities of the Human Resource Advisory Committee, an internal body whose role it is to aid in the identification of key human resource issues and assistance in the development of strategic solutions, was reinstituted under new leadership and mandate. The following issues were taken under review and at the end of the year were at various stages of resolution:
    - Management and Employee Performance Appraisal System upgrades
    - New Employee Orientation Program
    - Employee Rewards and Recognition Program
    - the implementation of the Engineer-In-Training Program was achieved. This program provides young engineers with increased employment opportunities and provides a basis of renewing the organization through recruitment of graduating university engineers.
    - Several major Occupational Health and Safety initiatives were instituted to improve the safety and well-being of employees on departmental worksites. These included:
    - development of guidelines for the administration of legislation pertaining to Principal Contractors
    - principles for managing hazardous goods on departmental worksites
    - development of uniform workzone traffic accommodation standards for street and highway road construction
    - development of new guidelines regarding smoking at departmental workplaces.
- Support of Human Resource initiatives at the interdepartmental level continued with key attention focusing on the following activities:
    - negotiation of the Collective Agreement
    - implementation of delegated authority for the classification of management positions
    - enhancement of the Alberta Personnel Information System (APIX) automated across government
    - participation in the Personnel Directors' Council, a body established to provide a forum on joint issues across government.

  These activities provide the department with a direct voice into the Personnel Management policies and procedures of the government which in turn affect the quality of service and performance of our department.

TRAINING STATISTICS

ORGANIZATION DEVELOPMENT	1989	1988
	No. of Participants	
PROGRAM BY SPONSORSHIP		
Department courses	2583	1725
Personnel Administration Office	449	463
External Courses (Universities/Others)	824	583
Operations Training Program	600	650
Public Works, Supply & Services (Records Management, Computer Courses)	131	189
	4587	3610
OCCUPATIONAL HEALTH AND SAFETY		
TRAINING PROGRAMS		
First Aid	491	273
Defensive Driving	377	341
Professional Driver Improvement	188	78
Joint Worksite Health & Safety Member Training	29	9
Transportation of dangerous goods	106	62
Workplace Hazardous Materials Information System (WHMIS)	1603	–
	2794	763

ENGINEERING AND OPERATIONS DIVISION

M.A. Kehr
Senior Assistant Deputy Minister
L. Root
Assistant Deputy Minister, Regional Operations

Regional Operations Branch 16

J. Glowach
Executive Director

Regional Directors

Southern Region No. 1
R. Comchi
South Central Region No. 2
B.W. Kathol
Central Region No. 3
D.J. Bussard
North East Region No. 4
H. Hetu
North West Region No. 5
C. Lendzion
Peace Region No. 6
P.J. Sawchuk

Engineering Services Branch 31

G. Berdahl
Executive Director

Bridge Engineering Branch 42

N.M. Boyd
Executive Director

Equipment Supply and Services Branch 44

H. Wilson
Executive Director

Operational Planning Branch 38

K. Howery
Executive Director

Property Services Branch 37

P. Roche
Director

The 1988 restructuring of the department's headquarters organization resulted in the bringing together, into one cohesive division, the former Engineering Division; Regional Transportation Division; and Equipment, Supply and Services Branch, Administration Division; all reporting to the Senior Assistant Deputy Minister, Engineering and Operations. Operational Planning Branch and the components of the new Traffic Engineering Section were incorporated from their previous organizational location in the former Urban Transportation and Planning Division. Municipal Services Section from the Construction Programming Branch and Research and Development Branch were transferred out to the new Support Programs Division and the Planning and Development Division, respectively. Due to the primary focus of the new, large division on the delivery of the department's capital construction and maintenance programs, all regional and district operations functions remained co-ordinated under the Assistant Deputy Minister, Regional Operations.

In the engineering support areas of the division, several advancements were made in new policy directions of recent years. Notable was the decentralization of roadway design engineering which in the reporting year accomplished the shifting of approximately 45 per cent of the design volume from Edmonton Headquarters to the district offices. This shift, which commenced in 1987, continued smoothly resulting in more optimum year-round use of district engineering and technical manpower. Headquarters design staff reduction occasioned by this decentralization was accomplished through normal staff attrition without layoffs.

In the area of secondary highway design, tendering and construction supervision, an increasing amount of the program engineering was placed with private consulting firms chosen and engaged directly by the local municipalities. Some 21 local municipalities consulted out engineering work on 49 secondary highway projects funded by the department, a threefold increase in such projects over the previous year.

As an alternative to day labour hire, new initiatives in contracting-out included placing of 12 local road construction projects in improvement districts to small contractors by the competitive tendering process. The results were encouraging and indicated that small contractors were interested in competing for these projects and are capable of delivering a quality product.

Trial use of end-product construction specifications for asphaltic pavement, commenced in 1987 was continued, with eight contracts tendered in 1988 embodying this concept. Those contracts completed showed promising results for better quality work through increased contractor initiative while maintaining competitive costs.

The 1988 overall construction cost index remained level with that of the previous year, indicating a stable balance between industry capacity and the size of the construction program work volumes made available.

In the Regional Operations area, regional and district staff effectively programmed, scheduled and delivered a large capital construction volume and attended to the ongoing maintenance requirements of the provincial road and airport systems. Close liaison was maintained with municipal and improvement district councils and the local publics to resolve local transportation concerns.

The Equipment, Supply and Services Branch, which provides the equipment fleet and shop maintenance to the department's regional operations, continued to make substantial progress in the development of its computerized Equipment Management System. This will provide a comprehensive integrated system for on-line asset control, work order generation and tracking, preventative maintenance and warranty tracking and defect monitoring, and will link to the billing and financial control system. The system will be up and running in 1989.

Bridge Engineering Branch again provided for Alberta Environment the engineering and contracting support for canal bridge requirements associated with the Irrigation Headworks and Main Irrigation Systems Program funded by Alberta Heritage Savings Trust Fund.

Individual reports of each of the divisional branches and regions follow.

Regional Operations [illegible]

Regional Operations is responsible for the development, scheduling and fiscal control of the major construction programs together with management and field implementation of the construction and maintenance of the provincial transportation system. This area is comprised of Construction Programming, Operations, and Aviation, with the field implementation handled by six regional directors located in strategic centres throughout the province.

Specifically, Regional Operations is responsible for the programming, management and field delivery of the following elements:

- regional administration
- construction programming
- construction and maintenance of:
  - primary highways
  - approach roads
  - forestry roads
  - improvement district roads
- construction of:
  - tourism resource roads
  - vehicle inspection stations
  - secondary highways
  - resource roads improvement program
  - roads to resources
  - pavement rehabilitation
  - provincial airport facilities
  - community airport facilities
- construction, maintenance and operation of ferries
- maintenance and operation of forestry airstrips
- Improvement District Trust Account Program
- maintenance and operation of provincial air facilities.

Under the construction programs, improvements were made to approximately 2924 kilometres of roadways, and maintenance operations were performed on approximately 37 285 kilometres of roadway under the primary highway and improvement district programs.

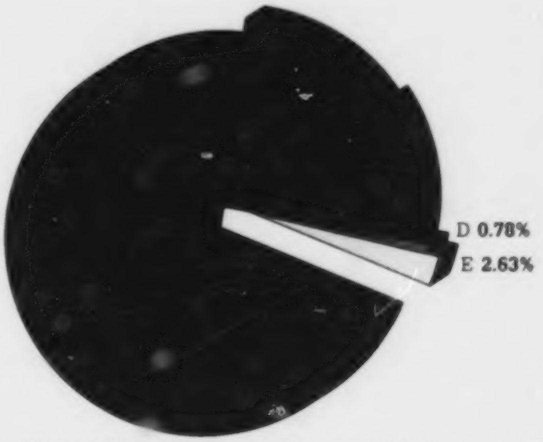
Between April 1, 1988 and March 31, 1989 the following materials were used in contract construction work on provincial primary highways, secondary highways, airports, approach roads, and resource roads.

First course gravel surfacing	2 699 328 t
Granular base course and asphalt stabilized base course	6 143 646 t
Cement stabilized base course (sand)	426 073 t
Asphalt concrete pavement gravel	2 888 101 t
Skid resistant surface gravel	226 775 t
Recycled asphalt pavement	305 293 t
Total asphalt used	239 760 t
Total cement used	24 840 t

Regional Operations staff continued to work closely with the various municipal and improvement district councils and local people in dealing with and resolving local transportation concerns.

An analysis of Regional Operations total expenditures, by major categories of activity is shown below. Details of the work undertaken by Regional Operation's branches are reported on the pages which follow.

1988/89
REGIONAL TRANSPORTATION EXPENDITURES



A.	Major construction of primary highways, secondary highways, approach, park and resource roads, pavement rehabilitation:	71.15%
B.	Maintenance of highways and ferries:	13.29%
C.	Construction and maintenance of Improvement District roads:	12.15%
D.	Construction and maintenance of airports and airstrips:	0.78%
E.	Regional Administration:	2.63%

Construction Programming

The responsibility of Construction Programming includes analysis of budget requirements, priorization and development of the department's long term and current road construction programs, scheduling and delivery of the construction programs, and financial control of the associated budget components.

The work is handled by three sections: Program Development, Program Management and Technical Services.

Program Development

This section is responsible for system and budget analysis, program development, priorization of projects, and advance scheduling of the following major capital programs:

- Primary Highways Construction Program
- Pavement Rehabilitation Program
- Secondary Highways Program
- Resource Road Improvement Program
- Ring roads and inter-city connections
- Approach Roads Construction Program
- Tourism Resource Roads Program
- Highways 1 and 16 Four-lane (twinning) Program
- Roads to Resources Program.

This section is also responsible for advance program co-ordination of the primary highway construction schedule, the bridge construction program, and the Vehicle Inspection Station Program.

Program Management

Program Management is responsible for the management of the scheduling, delivery, and financial control within budget, of the following programs:

- construction of:
  - primary highways (including the twinning program for Highways 1 and 16)
  - approach roads
  - tourism resource roads
  - vehicle inspection stations
  - secondary highways
  - provincial and community airports
  - improvement of resource roads
  - pavement rehabilitation
  - roads to resources
  - construction and maintenance of Improvement District roads
  - construction and maintenance of Forestry Roads
  - Improvement District Trust Account.

To ensure delivery of the construction programs, the section co-ordinates, schedules and manages interdepartmental and consultant engineering activities, monitors engineering and construction activities and progress, maintains expenditure control to ensure delivery within budget and liaises with outside agencies.

Additional responsibilities include analysis of industry capability, liaising with other government departments and agencies as well as interdepartmentally, to ensure the necessary approvals and agreements for construction projects, and contractor liaison as necessary for timely delivery of construction programs.

Technical Services

This section is responsible for delivery of mapping and drafting services, program development support, management of right-of-way acquisition budgets, management of the Revolving Fund gravel processing budget, co-ordination of technical and administrative standards and procedures for regional operations, records management and general administration for the branch.

Construction of Primary Highways

The main emphasis of the primary highways construction programs continues to be the upgrading of older highways, the strengthening of existing pavement structures, and the extension of the graded and paved network to meet the transportation demands associated with industrial, commercial, agricultural, commuter and tourist traffic throughout the province.

Multilaning of the highly congested routes continued to be a priority and construction was completed during the reporting period on:

- Highway 1, East of Suffield to junction SH 524
- Highway 1, West of junction SH 884 (Suffield) to east of Suffield
- Highway 2, North of Stavely to Nanton
- Highway 16, East of Hinton to west of Obed
- Highway 16X, West of Vegreville to east of Vegreville
- Highway 22X, junction Highway 22 to west of Highway 2.

Construction was commenced on:

- Highway 1, East of junction SH 875 to east of junction SH 876
- Highway 1, North of Alderson to west of junction SH 884
- Highway 16, West of Obed to east of Obed
- Highway 16, East of Obed to Medicine Lodge
- Highway 16, Edson to junction Highway 32
- Highway 16, East of Highway 32 to east of Niton Junction
- Highway 16, West of junction SH 751 to west of Wildwood
- Highway 16, East of Vegreville to east of Highway 36
- Highway 16, East of Mannville to west of junction Highway 41.

Widening of the four-lane highway between Airdrie and Red Deer continued with the following projects being completed:

- Highway 2, North of Airdrie to south of Crossfield
- Highway 2, South of Highway 54 to south of Penhold Interchange.

Construction was commenced on:

- Highway 2, North of Olds to south of Bowden.

During the reporting period construction was completed on 706.49 route-kilometres of primary highways of which 119.36 kilometres of two-lane roadway were constructed under the twinning program. This included the extension of new paved surfaces on 258.18 kilometres.

Major new initiatives in this program included commencement of median widening on Highway 2 between Airdrie and Red Deer widening of Highway 63 from Wandering River to Fort McMurray, and four-lane construction on the Export Highway between Highway 3 and Nanton. Extensive work was undertaken on the Trans-Canada and Yellowhead highways under the twinning program.

Street and roadway improvements were undertaken on eight primary highways through seven towns and villages. Three of the projects were performed as part of a department contract while the remaining projects were designed and supervised by consulting engineering firms working for the cities, towns or villages under the terms of an agreement with the department. Of these, two were carried over from 1987/88 and three were carried into 1989/90.

Expenditures for primary highway construction totalled $158 208 772. The different types of work undertaken by kilometre were:

	REGULAR PROGRAM	TWINNING PROGRAM HIGHWAY 1 & 16
Grade	318.32	95.65
Granular Base Course	330.48	60.43
Asphalt Stabilized Base Course	204.78	30.40
Cement Stabilized Base Course	17.61	–
Asphalt Surface	382.05	36.15
Recycled Asphalt Pavement	68.59	–
Reclaimed Asphalt Pavement	44.86	–
Skid Resistant Surface	421.12	–
Dust Abatement	14.40	–
Street Improvement	7.78	–
Department:		
Engineering	349.14	64.15
Design	123.46	48.33
Consultant:		
Engineering	22.67	–
Design	19.00	–
Total task-kilometres	2324.26	348.31

Construction of Approach Roads

Construction of approach roads to towns, villages and hamlets located near primary highway and secondary highway routes continued to be co-ordinated with major projects in the area. Access projects to 31 communities were underway during 1988/89; four were carried over from 1987/88 and 15 will be completed in 1989/90. Construction affected 49.47 kilometres. Expenditures totalled $4 445 024.

The different types of work undertaken by kilometre were:

Grade	15.61
Granular Base Course	10.08
Asphalt Stabilized Base Course	6.39
Cement Stabilized Base Course	3.11
Asphalt Surface	20.09
Skid Resistant Surfacing	11.16
Gravel	3.50
Consulting Engineering	1.00
Construction Engineering	0.85
Recycled Asphalt Concrete Pavement	6.89
Reclaimed Asphalt Pavement	0.56
Street Improvement	1.49
Total task-kilometres	80.73

Construction of Tourism Resource Roads

A total of 32.72 route kilometres of road were constructed under this program for a total expenditure of $2 613 633.

Major projects included completion of grading south of Manyberries to junction Highway 61, the Shaw Lake Road and 5.6 kilometres of the Pinehurst Lake Road. Paving was completed on the access road to the Interlakes Parking Lot. Grading was commenced on SH 899 from junction SH 501 to south of Manyberries; on the local road from the junction Primrose Lake Road to the Fish Hatchery, and on SH 897 from east of Ethel Lake to junction Fish Hatchery access. Cement stabilized base course was started from junction Highway 28 to Bonnie Lake. Grading was also started on the combination project PR 135 from junction Highway 34 to Youngs Point Provincial Park and on the Lakeshore Road from the Sturgeon River to south of Gunn.

The different types of work undertaken by kilometre were:

Grade	30.25
Granular Base Course	0.17
Dust Abatement	94.29
Gravel	23.38
Asphalt Surface	0.17
Recycled Asphalt Pavement	2.47
Reclaimed Asphalt Pavement	1.32
Department:	
Engineering	14.83
Design	8.88
Consultant:	
Engineering	11.00
Design	13.25
Total task-kilometres	200.01

Construction of Vehicle Inspection Stations

The Vehicle Inspection Station Program involves the construction of entrance, exit, bypass lanes, parking areas, buildings and site development for these facilities.

Construction was undertaken for portable stations at Rocky Mountain House and Red Deer. Grading commenced for the vehicle inspection station at Slave Lake.

Expenditures totalled $301 291.

Construction of Secondary Highways

Secondary highway improvements continued to be a major priority with county, municipal district, special areas, improvement districts, town and village councils. Improvements were undertaken on 920.97 route-kilometres of secondary highways.

Improvements were made to secondary highways through two towns and villages under the terms of an agreement with the department. The work was directed by consulting engineering firms working for the urban municipalities.

Preliminary engineering and project design was undertaken on 30 secondary highway projects by consulting engineering firms working for counties and municipal districts. Additionally, the following projects were performed under the management of consulting engineering firms working for counties or municipal districts: eight grading, five base course, five final paving and one combination grading, base course and paving.

Expenditures for the Secondary Highways Program totalled $92 251 749. The different types of work undertaken by kilometre were:

Grade	358.98
Granular Base Course	299.62
Asphalt Stabilized Base Course	274.11
Cement Stabilized Base Course	44.17
Asphalt Surface	260.52
Double Seal Coat	36.48
Skid Resistance	260.65
Dust Abatement	45.01
Gravel	258.11
Street Improvement	2.17
Construction Engineering	41.64
Consultant	
Engineering	299.34
Design	245.55
Department	
Engineering	223.45
Design	104.28
Total task-kilometres	2754.08

Improvement of Resource Roads

The demand continued for improvements to roads impacted by resource traffic. High standard roads were constructed to expedite the operation of resource and industrial traffic on a year-round basis and to reduce the impact on surrounding roads in a particular area.

Two projects were undertaken by towns and villages under the terms of an agreement with the department. The preliminary engineering, design and project supervision were performed by consulting engineering firms.

Counties and municipal districts also utilized the services of consulting engineering firms for six preliminary engineering and design projects and project management on five grading projects.

Improvements were made to 304.06 route kilometres of road for a total expenditure of $25 528 444. The different types of work undertaken by kilometre were:

Grade	182.12
Granular Base Course	50.81
Asphalt Stabilized Base Course	64.19
Cement Stabilized Base Course	35.83
Asphalt Surface	55.90
Double Seal Coat	5.30
Skid Resistant Surface	20.43
Construction Engineering	1.45
Gravel	183.51
Dust Abatement	14.83
Department:	
Engineering	57.15
Design	14.27
Consultant:	
Engineering	49.16
Design	48.90
Total task-kilometres	783.85

Roads to Resources

This program provides for the development of high standard roads to meet the specialized needs of the resource industries of the province.

One project was performed under an agreement with Keyano College as a training program for equipment operators under actual field conditions.

One location study, three preliminary engineering and design, management of two clearing and of three grading projects were performed by engineering consultants under the terms of agreements with the department. Projects were undertaken on the road infrastructure accessing the new Peace River Pulp Mill (Daishowa). Extensive grading was completed on SH 813 north of Calling Lake.

The major activities in this, the first year of this program, were: location surveys, clearing, preliminary engineering, design and geotechnical work. Nineteen grading and two base and paving projects were underway resulting in completion of approximately 140 route-kilometres of roadway. Expenditures for the fiscal year were $39 449 840.

The different types of work undertaken by kilometre were:

Grade	136.44
Granular Base Course	5.60
Gravel	96.89
Survey Location	66.70
Construction Engineering	35.06
Department:	
Engineering	185.95
Design	117.50
Consultant:	
Engineering	33.67
Design	19.54
Total task-kilometres	697.35

Pavement Rehabilitation

An aging pavement system, heavier loading, increased traffic volumes and environmental impact has increased the severity of stress on the province's paved highways. Many of the older pavements require rehabilitation, repair and strengthening. To protect the existing investment and structural integrity of the pavement structures a program of pavement rehabilitation was continued and significant progress was made in restoring these older pavements to a rejuvenated condition.

During the past year, thirteen projects included recycling of existing asphaltic pavement in areas where aggregates were in short supply.

Pavement rehabilitation was undertaken on 484.61 route-kilometres of highways at a total cost of $35 685 826.

The different types of work undertaken by kilometre were:

Granular Base Course	24.51
Asphalt Surface	451.20
Recycled Asphalt Pavement	62.56
Reclaimed Asphalt Pavement	76.47
Street Improvement	4.52
Grade	4.00
Construction Engineering	7.80
Total task-kilometres	631.06

Improvement District Construction

A total of $22 718 471 was expended on capital construction projects on local and secondary roads within 12 improvement districts during the reporting period, and also for construction of access and internal roads under the Indian Reserve and Metis Settlement Access Program.

The Public Lands Division of Alberta Energy and Natural Resources continued to open up new lands for settlement during this period. At a cost of $1 749 157, 45.2 kilometres of access roads were constructed. This initiative was further enhanced during this reporting period with the continuation of the Roads to Existing Farmlands Without Access Program. A total of $1 753 567 was expended to construct 62.5 kilometres of access road in this regard.

Six improvement district hamlets benefited from the Hamlet Streets Assistance Program resulting in an expenditure of $322 867 on road and street improvements.

Improvement District Maintenance

There are 19 317.94 kilometres of secondary and local roads in improvement districts, and 439.3 kilometres of public roads within Indian Reserves. These roads required an expenditure of $15 795 741 for the summer and winter maintenance operations.

Improvement District Trust Account

Alberta Municipal Affairs provided the department with $19 851 214 from tax revenues for transportation projects in the improvement districts.

The work undertaken with trust funds on improvement district roads by kilometre was:

Grade	89.5 kilometres
Gravel	3656.0 kilometres
Dust Abatement	214.1 kilometres
	3959.6 kilometres

Construction and Maintenance of Forestry Roads

An expenditure of $2 953 780 was incurred on the construction and maintenance of 3653.74 kilometres of forestry roads. The projects undertaken were established through consultation with the Alberta Forest Service Branch of Alberta Energy and Natural Resources.

Airport Construction: Provincial and Community Airports

Among the major activities in the Provincial Airport Program was the completion of site development and landscaping associated with the new High Level Air Terminal Building. Major reconstruction and rerouting of the access road within the airport, paving of the terminal parking lot and the upgrading of the access road intersection with Highway 35 were also completed. Runway lighting for the Red Earth airport was installed.

The Community Airport Program saw improvements to the runway-taxiway intersection at Fairview. Levelling course repairs were made to several areas on the High Prairie runway and repaving of the runway overruns. At Valleyview major drainage improvement work was completed.

Slurry seal work was completed on one airport as part of a pavement rehabilitation initiative to preserve the investment in existing airports.

Expenditures incurred in the development of airport facilities included $680 130 for provincial airports, $100 146 for community airports and $297 666 for runway pavement rehabilitation.

Operations

Operations is responsible for:

- developing and monitoring the standards for highway maintenance
- equitable distribution of maintenance allocations to the regions and districts and the overall monitoring of these maintenance expenditures
- allocation and monitoring of administration budgets for the regions and districts
- overall responsibility for planning of programs involving rest areas, campgrounds, ferries and department maintenance yards
- supervision and direction of seven construction crews
- overseeing specialized projects such as the development of quotas and dispatching of gravel trucks for the Winter Works Stockpiling Program, making detailed arrangements for the 4-H Clean-up Campaign and other similar special projects.

Maintenance of Primary Highways

Procedures for the privatization of a number of maintenance functions are now well in place. These include campground maintenance, snowplowing of local roads, guardrail and sign installations, mowing of highway rights-of-way, seeding of highway rights-of-way and borrow pit areas and centreline painting. These initiatives have been in the main successful, particularly the mowing of highway rights-of-way. New initiatives in the area of crackfilling and installation of pavement markings are being considered for the next fiscal year.

The most significant new initiative in the Operations Branch during the 1988/89 fiscal year is the undertaking of a feasibility study for the implementation of a Maintenance Management System (MMS) in the department. The consultant, Delcan Western Ltd. completed the report in early December and recommended in favor of a Maintenance Management System. Due to budgetary constraints the implementation of the system has been delayed.

Maintenance of primary highways accounted for $65 872 698 in expenditures. The types and lengths of road maintained in two-lane equivalent kilometres are:

	GRAVELLED	OILED	PAVED	TOTAL
Primary Highways	962.81	408.09	13 518.23	14 889.13
Approach Roads	15.29	7.46	295.39	318.14
	978.10	415.55	13 813.62	15 207.27

Erosion Control Program

During the 1988/89 construction season a total of 159 erosion control projects were completed. Eight thousand and eighty-four hectares (20 120 acres) of rights-of-way, borrow areas and gravel pits were seeded to grass and fertilized along primary highways, secondary highways, resource roads, improvement district local roads and airports.

Total expenditure was $1 970 536.

4-H Clean-up Program

During the 1988/89 4-H Clean-up Campaign, a total of 10 477 children and 4169 adults representing 616 clubs participated in cleaning up Alberta's primary highway rights-of-way. A total of 9358 kilometres were cleaned with 67 552 bags of litter being collected. The clubs earned a total of $201 215. Program expenditure was approximately $344 830.

Construction of Campsites and Rest Areas

During the 1988/89 construction season a total of $286 700 was allotted for upgrading Alberta Transportation and Utilities' campgrounds. Upgrading included improved water supply, improved access, landscaping, improved waste handling facilities and campground amenities. Grants were provided as follows:

- $66,000 to the City of Medicine Hat toward the construction of roads, parking areas and landscaping at the city rest area
- $4000 to the Alberta Private Campground Owners Recreation Society to assist in developing a marketing strategy
- $5642 to the Village of Longview to assist in the construction of a rest/picnic area development.

Alberta Transportation and Utilities transferred the Birch Lake campground to the Village of Innisfree and provided a grant of $30 000 to the village for upgrading the internal road network. The department transferred the High Level campground to the Town of High Level and agreed in principle to transfer the Alix Lake campground to the Village of Alix, along with a $25,000 grant to the village for site improvements. Alberta Transportation and Utilities assumed control of the Silver Valley campground. Sidewalks, patios, tree grates, picnic pads, retaining walls and outdoor furniture was constructed at the Ranchland Teepee Rest Area for a cost of $36 947. An irrigation system for the site was designed and air conditioning was installed in the rest area building. Installation of the irrigation system and final landscaping will be completed during the 1989/90 construction season.

The total expenditure for the construction of campgrounds and rest areas was $473 215.

Signing

Major signing was undertaken on construction projects involving the installation of approximately 2000 signs. In addition to this, 450 signs with breakaway bases were installed on existing and new projects. Along with this, two overhead sign structures were installed on multilane highways. The installation of traffic signals and cross-walk signals was completed at six locations. The expenditure for the signing, traffic signals and guardrail installation was approximately $5 200 000.

Guardrail Program

The raising of substandard guardrail to appropriate heights and the installation of guardrail on projects totalled 105 900 metres.

Approximately 4600 road edge delineators were installed in combination with this work.

Skid Resistance Program

The department's two camps applied skid resistance surfacing to 443.17 kilometres of paved surface on the province's primary highway system at a cost of $2 985 270.

Additionally, 25.96 kilometres of paved roadway on the secondary highway system had skid resistance surfacing applied at a cost of $70 000. A high float emulsion skid resistance surface was applied to 303.95 kilometres of secondary highways, 57.86 kilometres of the province's primary highway system, and 22.32 kilometres to approach roads. The total expenditure incurred for doing this work was $1 205 337.

The department also contracted 75.49 kilometres of skid resistance surface treatment to the private sector for a total of $646 100.

The sum of $299 700 was expended during the fiscal year on the crushing of suitable rock chip material. Total cost for washing of the crushed chips amounted to $248 403.

A modified high float emulsion and styrelf was applied on an experimental test section this year.

The entire skid resistance treatment program was not completed due to poor fall weather conditions. However the projects scheduled and completed were within budget allocations.

Maintenance and Operation of Ferries

During the 1988/89 fiscal year $1 169 967 was expended for the operation and maintenance of the seven ferries still in operation in Alberta.

The new self propelled steel ferry launched at the La Crete crossing in October 1987 was operated all season and provided an improved level of service which met the needs of the area residents very well. Hydraulically controlled ramps for the Shaftsbury Ferry were constructed and put into service in the fall of 1988. These were designed that the ramps could be hydraulically lifted onto wheels facilitating the moving of the ramp assemblies to suit the water level of the river. These ramps are now functioning well and similar ones will be constructed for the La Crete Ferry.

The other five ferries in operation in the province are functioning well and no major upgrading is envisioned for the near future.

Aviation

Aviation is responsible for the preparation and administration of the Provincial Airport Development Program.

During the year meetings were held with local officials in many communities to provide information on the Provincial Airport Development Program and give advice and assistance regarding operations.

Liaison was continued with aviation related industries and organizations. Aviation was represented on organizations such as the Alberta Aviation Council, the Air Transport Association of Canada, and the International Northwest Aviation Council.

Background information, technical advice and position papers for senior management were provided on a wide variety of aviation subjects, as part of departmental initiative; or in response to federal activities in both the operational and policy areas of air transportation.

During the summer of 1988 official opening ceremonies were held for the airports at Beaverlodge and Rimbey.

Expenditure of the headquarters component amounted to $282 669 which covered the planning, programming and administration of aviation activities. Included in this total were grants of $125 000 to the Alberta Aviation Council and its subsidiary sector, the Civil Air Rescue Emergency Services (CARES).

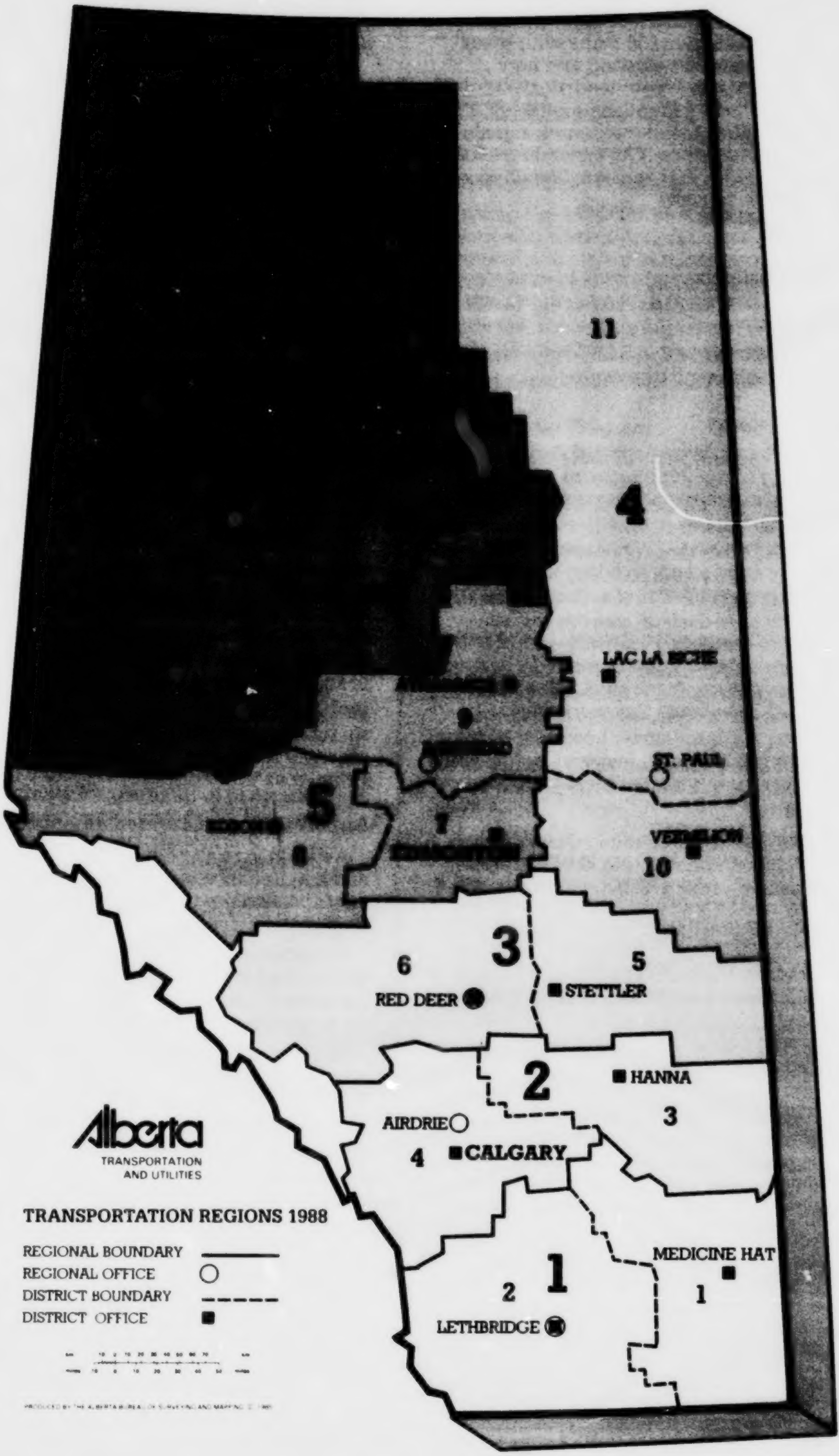
The CARES system provides training to flying personnel in the specialized task of airborne searching, and the organizational structure to mount searches for missing aircraft or other emergency situations.

Airport Operations and Maintenance

Aviation is responsible for monitoring the operation and maintenance of 16 provincial airports, 61 forestry airstrips, and the Civilian Medley Air Terminal on Canadian Forces Base Cold Lake.

It provides support and develops standards and guidelines for all airport maintenance and operations, including electronic navigational aid systems installed on 40 provincial and community airports.

Expenditures on operations and maintenance activities during the reporting period totalled $2 842 161.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LETHBRIDGE
Alberta
TRANSPORTATION AND UTILITIES
TRANSPORTATION REGIONS 1988
REGIONAL BOUNDARY
REGIONAL OFFICE ○
DISTRICT BOUNDARY
DISTRICT OFFICE ■

Region 1 (Southern)

The weather patterns changed a little in Southern Alberta during the 1988/89 fiscal year. The droughtlike conditions continued during the summer months allowing excellent progress on construction and maintenance programs.

All maintenance activities undertaken by both the department forces and private contractors were completed as scheduled. The winter in the west half of the region was much more severe than during the previous five years which taxed manpower and equipment to the limit. In the eastern half the winter continued the recent trend of being relatively mild, with below normal snowfall.

A total of 39 construction contracts were worked on during the year of which 32 were completed. The contracts involved:

- one hundred and fifty-three kilometres of asphaltic concrete pavement
- one hundred and thirty-four kilometres of granular base course
- one hundred and thirty-two kilometres of grading, 42 kilometres of skid resistance surfacing and five crushing projects.

There was also an additional 36 kilometres of grading on secondary highways completed by the local municipalities. Total expenditures in Region 1 for 1988/89 were approximately $60 million.

Under various bridge programs a number of structures were constructed in the region. Two major structures completed were the Castle River Bridge, west of Pincher Creek on SH 507 and the Little Bow River Bridge, west of Carmangay on Highway 23. A number of smaller bridges were also completed on local roads. Two major decks were restored under the department's Major Bridge Deck Maintenance Program. Extensive work was also undertaken to strengthen three steel trusses on SH 811 crossing the Oldman River at Fort MacLeod and the Willow Creek Bridge, north of Fort MacLeod on Highway 2. The combined efforts of this department, Alberta Environment, local road authorities and irrigation districts, again made possible the replacement or rehabilitation of a number of irrigation bridges as part of the ongoing irrigation canals rehabilitation program. The reconstruction of the irrigation canal bridge on SH 845, south of Coaldale was of particular significance.

With an increased emphasis on tourism in southern Alberta, the region assisted many of the communities by providing increased signing, identifying tourism and recreational facilities.

Other major construction highlights in the region were:

- Two major twinning projects were undertaken on Highway 1:
  - an 11 kilometre grading and base course project from east of SH 875 to east of SH 876 was started
  - a 13.5 kilometre grading and base course project from junction SH 884 to east of Suffield was completed
  - a 15.4 kilometre grading, base and pavement carryover project was completed west of Bassano.
- Work continued on SH 889 (Red Coat Trail) with the completion of 6.48 kilometres of grading south of Manyberries.
- A 7.665 kilometre grading project was completed on SH 879, northwest of Bow Island.
- A 20.95 kilometre gravel base course and asphaltic stabilized base course on SH 556, south of Gem was completed.
- Commencement of the twinning of the "Export Highway" with the completion of a 21.2 kilometre section from Nanton to Stavely.
- Completed the last 12 kilometres of upgrading of Highway 2 from Fort MacLeod to the U.S. Border.
- Work continued on Highway 22 from Lundbreck to Longview by completing a 13.3 kilometre base course project.
- Major upgrading and paving was completed on a 12.3 kilometre section of Highway 23 between Carmangay and Champion.
- A reconstruction of a new roadway and bridge was completed on SH 529 at the Travers Dam Reservoir.
- A 17.95 kilometre base course project on SH 800 linking Hillspring to Highway 5 was completed.
- Completed a 4.8 kilometre grading project on SH 533 west of Nanton.

Other grading, base course and paving projects were undertaken on both primary and secondary highways, some of which were completed, while others were carried over into the next season.

Major pavement rehabilitation projects on the primary highways system included sections on Highways 2, 3 and 4.

Grants were provided to the respective counties and municipal districts for street improvements, with special grants being made to the Municipal District of Taber, the County of Lethbridge and the Municipal District of Pincher Creek.

A new eight bay maintenance facility was opened west of Brooks. Its central location and ease of access to the highway network in all directions will provide for improved levels of maintenance service.

A close working relationship continues to be maintained with all rural and urban municipalities in the region and other government departments in an effort to meet the transportation needs of the region.

Region 2 (South Central)

In addition to the financial assistance provided to the cities of Calgary, Airdrie and Drumheller, a total of approximately $76 million was expended in the department's 1988/89 regular capital and operating programs in the South Central Region. A total of 46 contracts were tendered in the region, several of which were planned to be carried over into 1989. Approximately 101 kilometres of grading, 125 kilometres of base course, and 208 kilometres of final paving and resurfacing were completed.

Activity in the region continued with the ongoing survey, design and reconstruction of Highway 2 (The Export Highway) to bring it to a modern and safe four-lane divided facility. This north/south corridor is the backbone of transportation for tourists as well as goods and services between Alberta and the United States.

Construction highlights during 1988/89 included:

- Reclaim and recycle pavement resurfacing completed on:
  - the east and westbound lanes on 32.5 kilometres of Highway 1 from the Banff Park Gate to Kananaskis River. Recycle pavement overlay was also completed on an additional three kilometres of the Harvie Heights Road.
  - the east and westbound lanes on 9.6 kilometres of Highway 1 from the Calgary east city limits to Chestermere Lake.
  - the 9.4 kilometres of Highway 1A from the east Calgary city limits to Chestermere Lake.
  - the 14.2 kilometres of Highway 2 from south of High River to north of Aldersyde.
- Reconstruction started on a 10.1 kilometre section of Highway 2 from north of the Olds interchange to south of Bowden to an improved divided highway standard eliminating access to Highway 2. This project which provides for safety improvement will be completed in 1989.
- Reconstruction started on a 13.7 kilometre section of Highway 7 from Black Diamond to west of Okotoks to an improved highway standard. This project will be completed in 1989. Pavement resurfacing on 8.3 kilometres of Highway 2A from Okotoks to Highway 2 will also be completed in 1989.
- Granular base and asphaltic stabilized base course were completed on 18.4 kilometres of Highway 22 from south of Stimson Creek to Longview.
- Reconstruction was completed on 7.1 kilometres of Highway 22 from Highway 8 to the Trans-Canada Highway.
- Reconstruction was completed on the conversion of an 18.4 kilometre section of Highways 22 and 22X east of Priddis to west of Highway 2 to a divided highway standard.
- Paving was completed on 9.9 kilometres of Highway 22X from SH 797 to Highway 24.
- Pavement resurfacing was completed on 26.8 kilometres of Highway 27 from east of SH 791 to west of Highway 21. Pavement resurfacing was also completed on a five kilometre section of SH 587 and on a 1.1 kilometre section of SH 805.
- Granular base and asphaltic stabilized base course were completed on 15.1 kilometres of Highway 27 from east of SH 836 to east of the Red Deer River.
- Paving was completed on 17.1 kilometres of Highway 41 from Sounding Creek to north of New Brigden.
- Paving was completed on 22.4 kilometres of Highway 56 from SH 564 to south of Highway 10. Additional paving was also completed on an 11.1 kilometre section of SH 840 from north of SH 564 to south of Rosebud and pavement overlay on a 3.3 kilometre section of Highway 9 south hill to Drumheller.
- Granular base course and asphaltic stabilized base course were completed on an 11.5 kilometre section of SH 549 from Highway 22 to SH 773.
- Paving was completed on an 18 kilometre section of SH 564 from the Calgary city limits to east of SH 791.
- Granular base and double seal coat were completed on an 18.5 kilometre section of SH 575 from SH 806 to Highway 21.
- Skid resistance application was completed on a 30.2 kilometre section of SH 580 from Carstairs to east of Cremona.
- Regrading was completed on a section of SH 838 from west of Drumheller to SH 837.
- Granular base and double seal coat were completed on a 16.1 kilometre section of SH 842 in the Blackfoot Indian Reserve.
- Granular base and asphaltic stabilized base course were completed on a 10.5 kilometre section of SH 851 south of Delia.

A variety of bridge programs were completed during 1988/89. Major construction on the primary system included Highway 22 over the Elbow River and replacing of two steel trusses on Highway 10X at Rosedale. Additionally an arch beam culvert replaced a deteriorating bridge on Highway 9 at Beiseker. Major construction on the local road system included the Little Red Deer River near Water Valley. Major deck restoration was completed at the Seebee overpass. A large culvert was installed under an existing bridge at Canyon Creek at Exshaw. In total 235 miscellaneous bridge projects were delivered in the region.

The 1988/89 construction season was a productive year with staff participation in design training, numerous courses and safety training seminars.

Region 3 (Central)

There were approximately 220 kilometres of primary highways and secondary highways paved including 68 kilometres that were overlaid under the Pavement Rehabilitation Program. Two hundred kilometres were completed to a base course stage. One hundred and eighteen kilometres of primary highways, secondary highways and resource roads were graded or regraded.

Regional staff met with the rural municipalities and a number of urban communities throughout the year to review and resolve local transportation issues. Expenditures for construction and maintenance in the Central Region totalled approximately $81 million.

Highlights of the major construction projects in the Region were:

Primary Highways:

- Highway 12 and 56 paving through Stettler.
- Highway 21 reconstruction from Highway 13 to south of New Norway.

- Highway 36 base course from Highway 12 to south of Sullivan Lake.
- Highway 36 paving from east of Castor to south of Alliance.
- Highway 53 base course from Forestburg to Highway 36.
- Highway 56 sideslope improvement from Stettler to south of Big Valley.
- Highway 2 widening from Innisfail to south of Highway 42.
- Highway 12 paving from Bentley to north of Eckville.
- Highway 20 paving from Jarvis Bay to Bentley.
- Highway 21 reconstruction from Highway 42 to south of Elnora.
- Highway 22 base course from east of Caroline to James River.
- Highway 22 base course from north of Rocky Mountain House to Highway 53.

Secondary Highways:

Major grading projects on secondary highways included:

- Secondary Highway 884 from north of Veteran to SH 599.
- Secondary Highway 899 from Highway 12 to north of Esther.
- Secondary Highway 597 from SH 815 to west of Haynes.
- Secondary Highway 611 from SH 771 to SH 792.
- Secondary Highway 771 from SH 611 to Highway 13.

Base course on secondary highways included:

- Secondary Highway 851 from Farrel Lake to SH 589.
- Secondary Highway 853 from Byemoor to SH 589.
- Secondary Highway 589 from SH 851 to east of Byemoor.
- Secondary Highway 611 from Highway 2 to Hobbema.
- Secondary Highway 761 from Stauffer to Highway 11.
- Secondary Highway 899 from south of Provost to south of Bodo.

Paving on secondary highways included:

- Secondary Highway 899 from Provost to north boundary Municipal District 52.
- Secondary Highway 592 from Penhold to SH 781.

Approach Roads included paving access to:

- Gadsby from SH 852.
- Forestburg from Highway 53.
- Hardisty from Highway 13.
- Galahad from Highway 36.
- Botha from Highway 12.
- Duhamel from Highway 21.
- Bodo from SH 899.
- Elnora from Highway 21.
- Lousana from Highway 21.

Pavement rehabilitation projects included:

- Highway 12 from east of Stettler to Gadsby.
- Highway 13 from Hardisty to Amisk.
- Highway 2A from Lacombe to Ponoka.

Town and village streets assistance was provided to New Norway and Galahad for paving of their respective main streets and to Gadsby for paving of main street and access to the school.

Region 4 (North East)

Region 4 includes the Vermilion District and the Lac La Biche District covering an area extending roughly from south of Wainwright north to the Northwest Territories Boundary and from the Alberta/ Saskatchewan Border west to Elk Island National Park.

Construction and maintenance expenditures for the North East Region were approximately $95 million.

The following are some of the construction highlights for the region.

Primary Highways:

- Highway 14 - pavement overlay from east of Jarrow to Fabyan.
- Highway 16 - work continued on the upgrading of Highway 16 to a four-lane divided highway with the following projects being undertaken:
  - completion of grading, base course and paving from west of Vegreville to east of Vegreville
  - commencement of grading, base course and paving from east of Vegreville to west of Lavoy
  - continuation of grading and base course from west of Lavoy to east of junction Highway 36
  - commencement of grading and base course from west of junction Highway 41 to west of Mannville.
- Highway 17:
  - pavement overlay from Lloydminster to junction SH 619 (50 per cent cost-shared with the Province of Saskatchewan)
  - pavement overlay from Lloydminster to junction Highway 45 (50 per cent cost-shared with the Province of Saskatchewan).
- Highway 28:
  - improvement to two intersections, and a major bridge upgrading in the Beaver Crossing area
  - pavement overlay from north of Warspite to White Earth Creek.
- Highway 45 - paving from Marwayne to the Saskatchewan Border.
- Highway 55 - the last grading project to complete the reconstruction from west of Iron River to Highway 36 was completed.
- Highway 63 - work on the widening of Highway 63 south of Fort McMurray continued with the following projects:
  - grade-widening base and paving from north of House River to north of Crow Lake
  - completion of grading, base course and paving from south of Hangingstone River to south of PR 119.

Secondary Highways:

- Secondary Highway 641 - completion of grading from west of the Makoo Indian Reserve to the Saskatchewan Boundary.
- Secondary Highway 645 - completion of base course from the junction of Highway 45 to the junction of SH 857.
- Secondary Highway 646 - completed grading from junction SH 881 to east of Stony Lake.
- Secondary Highway 657 - completed cement stabilized base course from east of Muriel Lake to SH 659.
- Secondary Highway 855 - grading from south of Holden to the junction of Highway 26.

- Secondary Highway 857 - completion of base course from the junction of Highway 45 to the North Saskatchewan River.
- Secondary Highway 867 - cement stabilized base course from Highway 28A to west of St. Lina.
- Secondary Highway 870 - completion of base course from the junction of Highway 14 to the County of Beaver South Boundary.
- Secondary Highway 881:
    - completion of base course from south of the SH 619 to east of the junction of SH 619
    - completed clearing from west of Imperial Mills to west of Conklin
    - cement stabilized base course from south of Anzac to the Gregoire Lake Park
    - completed five kilometres of selective upgrading south of Anzac.
- Secondary Highway 892 - final paving from Highway 28 at Ardmore to Highway 55.
- Secondary Highway 893 - completed the base course from the junction of Highway 45 to north of Vermilion River.
- Secondary Highway 897:
    - cement stabilized base course from SH 646 to west of Frog Lake
    - completed grading from northwest of Frog Lake to Frog Lake Indian Reserve Boundary
    - completed the grading from the north boundary of Frog Lake Indian Reserve to east of Reita Lake.

Approach Roads:

- Rich Lake - grading from Highway 55 to Rich Lake.
- Anzac - grading and base course from SH 881 to Anzac.
- St. Lina - grading and base course from SH 867 to St. Lina.

Assistance for street improvements was provided to the communities of Greenshields, Paradise Valley, Irma, Kitscoty, Vermilion, Bonnyville, Cold Lake, Grande Centre, Lindbergh, Lottie Lake and Pelican Narrows.

Grading was completed on 95.8 kilometres of roadway and 554.8 kilometres were gravelled in the Improvement District No. 18 road program.

Progress on the twinning of Highway 16 continued as scheduled for the 1988/89 fiscal year. This included a major winter works gravel stockpiling program resulting in the haul and stockpiling of 1.4 million tonnes of pit run gravel in preparation for the upcoming construction season.

The following is a summary of the road construction undertaken in the region under the Primary Highway, Secondary Highway, Resource Road Improvement, Twinning and Pavement Rehabilitation Programs:

- four clearing projects for 98 kilometres of right-of-way cleared.
- ten grading projects for approximately 71 kilometres.
- three combined grading, base course and paving projects for approximately 49 kilometres.
- thirteen base course projects for approximately 136 kilometres.
- five paving projects for approximately 101 kilometres.
- three combined grading and base course projects for approximately 23 kilometres.

Regional staff continue to work closely with rural municipalities, improvement districts, and towns and village councils to assist them with their transportation and utility matters.

Region 5 (North West)

The North West Region, with regional office located in Barrhead, had a total 1988/89 fiscal expenditure of approximately $126 million for capital construction and maintenance. Weather conditions and contractor schedules contributed to this reduction from expenditures in the previous year.

Average weather conditions resulted in good maintenance of the primary system within the allotted budget. However, the late winters and mild conditions that had been experienced in previous years did not permit the extension of the construction, and because of work schedules a number of contracts were not commenced as anticipated. In January 1989 a major blizzard in the Edmonton area resulted in the closure of Highway 2 south for a number of hours causing disruption to traffic.

Alberta Pacific Industries Ltd. announced a proposal to develop a large pulp mill northeast of the Town of Athabasca and this region was involved in the development of plans for the road infrastructure required to meet the mill's needs. Preliminary public meetings were held in some key communities affected by the development to receive feedback with regard to alternate road proposals.

A significant Winter Works Program took place involving the stockpiling of 1 077 824 tonnes of gravel and the utilization of 1048 trucks.

In construction the major thrust was the continuation of twinning the Yellowhead Highway west of Edmonton, with an annual expenditure of approximately $18 173 000. This year the emphasis was on grading and no new major sections were opened to the public. Of significance was the construction of a major bridge structure over the CNR tracks at Obed which will be finished in 1989.

In addition, contracts were awarded for paving east of Hinton to west of Obed, and a number of major grading projects from east of Edson to Wildwood.

Following are some other highlights of the construction program:

- Pavement overlay and improvements were made to the Fedorah curves on Highway 28 north of Gibbons. Pavement rehabilitation also was undertaken on Highway 14 east of Cooking Lake, Highway 39 west of Thorsby, and SH 794 north of Highway 16X.
- Final paving was completed on Highway 22 north of Highway 16 to the Lobstick River.
- With only minor work remaining to be undertaken, the project for twinning Highway 60 and constructing two new bridges over the North Saskatchewan River, which has spanned the last three years, is almost complete. This contract will be open to four-lane traffic early in 1989.
- Final pavements were placed on previously constructed base course projects on SH 616 east of Highway 22, SH 627 west of the Edmonton corporate limits, and SH 765 south of Highway 43.

- Major reconstruction continued on SH 630, the Wye Road in the County of Strathcona, with all engineering aspects being managed by private consulting engineers.
- Base course projects were carried out on SH 633 east of Darwell, including an intersectional treatment at Alberta Beach, and on SH 651 between Busby and Lac La Nonne.
- Regrading to secondary standards was carried out on SH 757 north of Highway 16 which included special geotechnical provisions and the installation of a complex culvert structure at Folstone Creek. Other grading projects included SH 779 north of SH 633 which was supervised and designed by private consulting engineers; SH 814 north of SH 616 and SH 827 north of Thorhild. Additional day labour projects of lesser value were carried out on SH 654 by the County of Barrhead and SH 812 by the County of Athabasca.
- Under the Resource Road Improvement Program regrading and the construction of a new bridge across the Nordegg River took place on the Sunchild Road south of Lodgepole.
- Other significant projects of benefit primarily to the woodland industry, but also to the oil and gas sector, were the continuation of grading on the Wolf Lake Road south of Highway 16 and the Elk River Road west of SH 620. Significant contract projects were undertaken on this latter highway utilizing the services of the private consulting sector. Under the same program grading continued on the Berland Road in the Smoky River area east of Grande Cache. In anticipation of the development of a plant southwest of Edson preliminary engineering, clearing and survey commenced on the Pembina Resources Road which runs approximately southeast of Edson.
- Two major grading projects took place on SH 813 between Calling Lake and Wabasca with some carryover work to 1989.

Regional staff maintained ongoing dialogue with rural municipalities and a number of urban communities to review and resolve local transportation issues.

Region 6 (Peace)

The Peace River Region experienced substantial activity in 1988/89. A large amount of work was undertaken to ensure that a reasonable access could be provided to the site of the Peace River Pulp Mill (Daishowa), near Peace River, which was announced late in the 1987/88 fiscal year. This project was constructed down in to the Peace River which is the largest river in the province. Approximately two million cubic metres of earth were moved in order to descend the several hundred, vertical metres from the top of the valley wall to the river.

All areas concentrated on continuing to explore alternative methods of privatizing various activities. Nine local road grading projects valued between $20 000 to $120 000 were tendered. These contracts were developed so that bondable equipment owners of all sizes could have an opportunity to bid. All of the projects were done well and the costs were reasonable. Based on the success experienced in 1988, it is anticipated that even more local roads will be built in this manner in future years. Construction of concrete collars on bridge size culverts and installation of culverts on local roads were two other tasks contracted for the first time in 1988. These experiments were also successful and more work of this nature will be tendered in the future.

New District Transportation Engineers were recruited for the High Level and High Prairie Districts. Both of the new incumbents have extensive experience with the department and it is anticipated that the transition will go very smoothly.

All staff enjoyed a continued good working relationship with elected councillors and administrative support personnel in the rural and urban municipalities throughout the region. Expenditures in the region totalled approximately $139 million.

Particulars regarding the major projects in each area of the region follow:

High Prairie - District 12

The construction season in the High Prairie District was fairly busy and the winter season was not unusual. The end of June was marred by heavy rainfall in the Swan Hills/Slave Lake area which resulted in extensive flooding of buildings and highways. Highways 2, 33 and 88 were closed for periods of time over a number of days. Several bridges were washed out and erosion of sideslope and ditches resulted. Department personnel reacted promptly and worked diligently to ensure that inconvenience to the travellers was minimized.

Under the Primary Highway Program, the following major achievements were recognized:

- Survey and design of a new alignment for Highway 49 up the east hill of the Smoky River at Watino was started. This area is very unstable and extensive engineering investigation is necessary.
- Twenty-seven kilometres of Highway 88, from north of the 20th Baseline to Utikuma Lake, was base paved. Seven kilometres was grade-widened prior to surfacing. This is part of the program to complete the surfacing from Red Earth to Slave Lake by the end of 1991.
- Survey and design for regrading of 30 kilometres of Highway 88, from east of Utikuma Lake to north of the junction SH 750, was completed by a private consulting engineering firm under the direction of the department.
- One kilometre of Highway 88, immediately south of Red Earth was widened in order to provide a standard suitable for surfacing and a cement stabilized base course contract for 41 kilometres, from Red Earth south on Highway 88, was awarded. Gravel stockpiling only was completed and all road work will be undertaken in 1989.

The Pavement Rehabilitation Program included two major projects:

- A contract involving a selective overlay for 14 kilometres and recycling for 2.3 kilometres on Highway 2, from west of Slave Lake to east of Faust, was awarded. Also included in the project were overlays on the Kinuso and Faust access roads from Highway 2. Crushing only was completed and road work will carryover to 1989.
- An overlay contract for 16 kilometres of Highway 2, from east of High Prairie to west of the junction of SH 750, combined with the overlay of the 2.2 kilometre access to Joussard from Highway 2, was tendered and awarded. Crushing only was completed and road work will carryover to 1989.
- The survey and design for access from Highway 2 of a new VIS, east of Slave Lake, was undertaken under the Vehicle Inspection Station Program. Some preliminary grading of the inspection station grounds was also completed under this program.

Work under the Secondary Highways Program included:

- Final paving of 18 kilometres of SH 744, from the junction of SH 676 at Whitemud to north of the Little Smoky River was completed.
- Final paving of 20 kilometres of SH 747, from Highway 2 to north of Snipe Creek was completed.
- A contract was awarded for cement stabilized base pavement on SH 750 for 17 kilometres from north of the Salt Prairie Road to Foster Lake. While gravel processing was completed, road work will be carried over to 1989.
- Substantial regrading and regravelling on selective sections of SH 754 between McMullen Lake and the boundary of Indian Reserve 166D was completed.

The Resource Road Improvement Program provided funding for the following projects:

- Construction of the 14 kilometres of SH 686, from Red Earth easterly was started. Much of the work was done during the winter, however, a significant amount will be carried over to the 1989 construction season. The Canada/Alberta Northern Development Agreement provided some funding for this project.
- Construction on another 29 kilometres of SH 686, from west of the Lubicon River to the Lubicon River was started. This is the final project which will be required to complete the link between Peace River and Red Earth. Most of the road work will be carried over to 1989.

Funding from the Roads to Resources Program was used for:

- Grading of the section of SH 813, from Sandy Lake south for 20 kilometres was initiated. Nearly two-thirds of the work was completed and the balance will be finished in 1989. This project, as well as one in the Barrhead Region, immediately to the south will complete a new roadway link between the Athabasca/Calling Lake and Wabasca/Sandy Lake areas. This work was supervised by a private consulting engineering firm on behalf of the department.
- Alignment location and timber salvage for another new 17 kilometre section of SH 813, which will route traffic around Indian Reserve 166A in the Desmarais area was undertaken.
- Crushing and stockpiling of a large quantity of gravel for use on SH 813 in the Sandy Lake area was completed. This project partially funded by the Canada/Alberta Northern Development Agreement was carried over from 1988.

Improvements to area airports included:

- Extensive repairs to the High Prairie Airport were required to strengthen weak zones. A small runway extension was also surfaced.
- Some levelling of the runway and a slurry seal was applied on the Smoky River Regional Airport near Donnelly.

Grande Prairie - District 13

In 1988/89, the Grande Prairie District once again, had a busy year, although some areas experienced heavy rainfall which delayed certain projects. Highlights of the year included a major recycling project on Highway 49 in the Spirit River area and was this district's first experience using reclaimed asphalt concrete pavement. The other highlight of the season involved erosion prevention and repair. Staff concentrated on finding an inexpensive, practical solution to problems caused by intermediate range water flows. Considerable success was experienced and expertise gained. Given current public concern with environmental issues this development is most timely.

The Primary Highway Program included the following projects:

- A contract for construction of climbing lanes in strategic locations, totalling eight kilometres in the Sturgeon Lake/Valleyview area on Highway 34 was awarded. Aggregates were processed but the road work will be carried over to 1989.
- Extensive strengthening of some two kilometres of weak areas along Highway 40 in various places, from south of the Kakwa River to north of the Cutbank River was undertaken.
- Survey and design was started on several sections of Highway 49 from west of Spirit River to Watino.
- Final paving of 15 kilometres of Highway 59 between La Glace and Vahalla Centre was completed.
- Regrading and base pavement on Highway 49, from Vahalla Centre west to the junction of Highway 2 for 21 kilometres was completed.
- The complete reconstruction of the access road to Young's Point Provincial Park from Highway 34 was started. This nine kilometre project will be completed in 1989.

Several of the secondary highways in Grande Prairie District were improved under the Secondary Highways Program which included:

- Upgrading of SH 681 in the Silver Valley area was continued. One more project remains to complete the entire length from Bonanza to Fourth Creek.
- Gravel crushing for the regrading and base course contract on SH 731, from Highway 49 southward for 16 kilometres was started. The road work will be carried over.
- Secondary Highway 733, from Teepee Creek north for 19 kilometres was upgraded to secondary highway standards. Base paving was started on SH 733 from Wanham south. Approximately four kilometres of the total length of 22 kilometres was upgraded to provide a suitable standard for surfacing. The majority of the work will be carried over.

- A 12 kilometre section of SH 734 in the Smoky Forestry Tower area was reconstructed.
- Reconstruction of the approaches to the Simonette River bridge was completed.

Major Resource Road Improvement Program projects included:

- Completion of the grade-widening, base course and surfacing of SH 666 from west of Grovedale to the Sulpetro Gas Plant. This 14 kilometre project was started in 1987 with the majority of the work being completed last year.
- Base and final pavement was applied on 11 kilometres of SH 667 in the Elmworth area. This was a carryover project from 1987.
- Upgrading of SH 672 between Highway 2 at Hythe and SH 724 was continued on a cost-shared basis with the County of Grande Prairie. Except for some cleanup and gravelling, all of the Emerson Trail between Highway 2 at Hythe and Highway 2 at Sexsmith has now been upgraded to secondary standards.
- The contractor completed upgrading and base course of SH 677 and SH 731 in the Woking area.

Improvements to the Valleyview Airport included installation of an impervious membrane adjacent to the runway to stop water from infiltrating the zone under the pavement which was causing some heaving. An extension of the runway was included in a contract which has been awarded, but that work will be carried over to 1989.

Peace River - District 14

Preliminary survey, design and construction of the road infrastructure directly related to the Peace River Pulp Mill (Daishowa) development, combined with the normal volume of work, resulted in 1988 being one of District 14's busiest years.

In addition to all grading designs being done in the district, accomplishments include the design, construction, and installation of new ramps for the Shaftesbury Ferry. The design has been modified further for the La Crete Ferry in the High Level District. These ramps eliminate the need to have a crawler tractor on site since they are now moved by an electric winch.

Funding from the Primary Highways Program was utilized to undertake the following major projects:

- Construction of a major intersection at the junction of Highway 2 and SH 743 in Peace River was started. A bridge near the intersection was replaced with a culvert and most of the grading and base course work was completed. Final surfacing will carryover to 1989.
- Approximately three-quarters of the base paving on Highway 64, from west of Clear River to east of Cleardale was completed. This 16 kilometre project will be finished in 1989.
- A major slide was repaired at the Clear River on Highway 64. Some work may be required in 1989 to complete the task.

Under the Secondary Highways Program the following large projects were advanced:

- A contract was awarded for the base and final paving of SH 683 from Nampa to Marie Reine. While the aggregate was crushed, all road work will be carried over to 1989.
- The road work associated with the installation of a culvert in the Hines Creek at the David Thompson Crossing on SH 685 to replace a substandard bridge was completed. The culvert work was done in 1987. In addition to the work in the culvert area, three kilometres from the bridge site south to the junction of SH 732 was also reconstructed.
- Base pavement on SH 685 for 17 kilometres, from west of SH 735 to west of Cardinal Lake will be completed in 1989, after a contract was awarded for this work late in 1988/89.
- Gravel crushing was undertaken for the base pavement on SH 689 for 22 kilometres from Dixonville west. This contract was awarded in 1987 and the contractor will undertake the work in 1989.
- Final paving of SH 691, from Highway 35 to the junction of SH 741 for 12 kilometres and for two kilometres on SH 741 was completed.
- Upgrading of SH 726 between Highway 64 and Worsley was completed. This 16 kilometre project was started in 1987.
- Secondary Highway 732, from Fairview north for 10 kilometres, was base paved and an additional nine kilometres north to the junction of SH 685 was upgraded.
- Gravel crushing commenced for the final paving of SH 744, from the junction of SH 683 south for 19 kilometres.
- Major geotechnical repairs, including the installation of stone columns in strategic locations, were undertaken on the Judah Hill portion of SH 744. Some cleanup will be required in 1989.

The only major project in the Resource Road Improvement Program was construction of SH 686 from east of Little Buffalo to west of Lubicon River. This 15 kilometre contract was awarded in 1987. Approximately one-third of the project remains to be completed in 1989.

Infrastructure construction for the Peace River Pulp Mill (Daishowa) was funded from the Roads to Resources Program. Projects included:

- Construction of an access to the mill site from Weberville was nearly completed. This work involved regrading of three kilometres of SH 743 and five kilometres of a local road, as well as six kilometres of new construction down the Peace River Valley. A contract to surface this entire part of the access was tendered late in the year and the contractor started crushing of aggregates. The base and final paving will be done in 1989.
- Complete reconstruction of SH 743, from Highway 2 to Weberville for 12 kilometres, was started. The existing pavement was removed, the road was widened, and a start was made on laying the base course. The balance of the base and final paving will be completed in 1989.
- Nearly 11 of the 20 kilometres required to build a new connector from Highway 35 to SH 743 were constructed. The remaining nine kilometres were cleared and the engineering completed so that another contract for the balance of the work could be awarded in 1989.
- Headslopes and approach fills for the east abutment of a new bridge across the Peace River at the mill site were built. As well, the alignment up the east wall of the Peace River Valley was cleared and the engineering was completed to allow tendering of a contract to construct this portion in 1989.

- Gravel was stockpiled for first course gravelling of the roadway on the east side of the Peace River.
- Thirty-eight kilometres of the major north/south log haul road on the east side of the Peace River were cleared. The work commenced at SH 686 and terminated north of the Little Cadotte River. This entire section was also surveyed and designed so that grading projects can be tendered in 1989.
- Partial fills were constructed for bridge approaches at the Cadotte River which is north of SH 686 on the north/south log haul road. Geotechnical problems at this site made it necessary to stage the construction of the embankment.
- A start was made on constructing reinforced earth retaining walls at the railway grade separation near the mill site. The majority of the work will be carried over to 1989.
- Late in the fiscal year, tenders were advertised for construction of the rail grade separation, as well as for construction of the new bridge across the Peace River. This major bridge at 738 metres long will be the longest highway bridge in the province. Contracts will be awarded early in 1989 which will result in the rail grade separation being completed by the fall 1989 and the bridge across the Peace River in the fall of 1991.

High Level - District 15

In 1988/89 the High Level District experienced a very heavy rainstorm at the end of June which caused extremely high water levels in all rivers and especially the Lawrence River. The increased water level and velocity caused a large amount of timber debris to be washed down the river and eventually lodge in the river channel immediately downstream of the bridge carrying Highway 58 over the Lawrence River. This accumulation of logs damned the river back and forced the creation of a new channel. This new channel, in combination with the high volume and velocity of water caused the east bridge approach to wash out, isolating the residents of Garden River. Timely repairs were undertaken with stream retraining works and bridge abutment rehabilitation planned for 1989. Besides this negative occurrence, the balance of the year resulted in the following positive accomplishments:

Under the Primary Highway Program the following were upgraded:

- Final paving of Highway 58, west of High Level to Rainbow Lake, continued with 26 kilometres being surfaced. Only 24 kilometres remains to complete the paving of Highway 58 from High Level to Rainbow Lake and late in the year a contract was awarded for final paving of this section. All work will be carried over to 1989.
- Twenty-seven kilometres of new grade construction were completed on Highway 58 from the Lawrence River to the Wentzel River. As a large percentage of the road right-of-way was soft and wet it was decided to move a majority of the dirt during the winter. The balance of the work was completed by mid-summer.
- A Band Council Resolution transferring Administration and Control of Highway 88 through the North Tall Cree Reserve No. 173A was successfully negotiated and preliminary survey and design commenced by a private engineering consultant.

In the Secondary Highways Program the following construction was undertaken:

- Three kilometres of SH 695 north from the Keg Post was reconstructed to modern standards. This completes the regrading of SH 695 west of Highway 35.
- Four kilometres of SH 697, immediately east of the Peace River to Tompkins Landing and dominated by the Peace valley hill, was reconstructed to secondary highway standards. This completes the regrading of SH 697 from the junction of Highway 35 to the junction of Highway 88 at Fort Vermilion.

Under the Resource Road Improvement Program funding was provided for:

- New grade construction and regrading continued on the Zama Lake Access from south of Assumption to north of Habay a total of 36 kilometres. Only three kilometres remain and this work as well as the final cleanup will be undertaken in 1989/90.

Under the Pavement Rehabilitation Program, an overlay project of 27 kilometres of Highway 35 from south of SH 697 to north of the 27th Baseline was undertaken. The project was split into two sections with 12 kilometres south of the 27th Baseline being paved, a gap of seven kilometres north of the 27th Baseline being omitted, and then an additional 15 kilometres north of the gap were overlaid.

Site development at the High Level Provincial Airport was essentially finished with the completion of the landscaping and the paving of the parking lot. Some minor surface deficiency repair and painting will be required to be undertaken in 1989.

In summary, the 1988/89 accomplishments involving bridges included:

- Major bridges were built over the Bald Mountain Creek, south of Grande Prairie; over Henderson Creek, near the British Columbia border; and over the Beaverlodge River, northwest of Beaverlodge.
- Four other bridges which were started in 1987/88 were completed this year; over the Simonette River, Goose River, Hay River and Sousa Creek.
- Two bridge crews spent several months repairing damage caused by floods in June/July. This work was in the Slave Lake and Kinuso areas as well as at the Lawrence River, east of High Level.
- The program of repairing major bridge decks and replacing deck joints was continued. New wearing surfaces were placed on bridges at Dunvegan and north of Valleyview.
- Bridges at Watino on Highway 49; at Driftpile on Highway 2; and at Waskahigan on Highway 43 were strengthened, thus completing the program to bring the capacity of all primary highway bridges to 62.5 tonnes. A start has been made on strengthening bridges in the secondary highway system.
- In addition to these major projects, six standard bridges and 35 bridge size culverts were installed on local roads and highways throughout the region.

Engineering Services resulted from an April 1, 1988 departmental restructuring, and is responsible for providing engineering services to the department's roadway and airport construction and maintenance programs. Responsibilities of the three sections, Contracts Engineering, Design Engineering and Materials Engineering, include:

- engineering standards and specifications
- geometric and structural design standards and services
- materials testing, analysis, design and quality control standards and services
- construction contract tendering and administration policies, standards and services
- construction materials procurement and allocation services
- pavement evaluation standards and services
- programming recommendations
- environmental and archaeological standards and co-ordination services
- utility relocation standards and co-ordination services
- equipment rental rate development
- engineering consultant administration standards and services
- primary highway designation administration
- highway intersection signing, design and co-ordination standards and services*
- highway lighting standards and co-ordination services*
- related engineering and technical support for all programs.

* Responsibility for highway lighting and intersection signing was transferred to the new Traffic Engineering Section of Operational Planning in August, 1988. Responsibilities for the department library and for research and development co-ordination were transferred to Administration and the Planning and Development Divisions, respectively, effective April 1, 1988.

The department's 1988 construction cost index remained unchanged from that of the previous year, with increased grading prices being offset by reductions in base course, paving and asphalt prices. This, coupled with transportation infrastructure demands associated with new forestry development on the Peace and Athabasca rivers, contributed to high levels of related engineering and contract administration activity. Computerization, continued decentralization of design activities to the districts, and continued privatization of engineering survey and design through municipal administration of secondary highway contracts, enabled accomplishment of the large program volumes with reduced headquarters staff, although this necessitated a heavy commitment toward training of the staff involved. This year also saw increased attention to mitigation of environmental aspects of transportation projects.

Increased use of end-product specifications for asphalt paving contracts resulted from initial indications that they are contributing to improved pavement quality. The department continued to participate actively in various national international highway research programs and to evaluate several new processes and products, with the objective of improving the performance and/or reducing the cost of roadways. New equipment and techniques were utilized to increase the efficiency and effectiveness of the pavement condition and performance monitoring programs that are essential to optimal programming and design decisions.

The following individual reports provide further detail concerning 1988/89 activities of the three branches.

Contracts Engineering

Contracts Engineering is responsible for:

- development and upgrading of contract specifications
- preparation, tendering and administration of contracts for the construction of primary highways, secondary highways, roads to provincial parks, approach roads, airports and miscellaneous projects
- assessment of contractors' claims and recommendations on the resolution of claims
- development of the schedule of rental rates for construction equipment
- co-ordination of environmental and archaeological management activities
- administration of construction material supply and procurement
- conducting engineering and final details audits
- engineering consultant selection and agreements.

This area consists of four sections: Contracts Administration, Construction Claims and Standards, Environmental Management, and Materials Purchasing and Administration.

Following are the highlights of the work accomplished during this reporting period.

Contracts Administration

Contracts Administration prepared and called tenders for 227 construction contracts during 1988/89. Included in this total are 149 contracts for grading, base and paving, 33 for gravel crushing, 12 for small local road grading projects and 33 contracts for traffic signals, lighting, painting and other types of work. The complexity of the contracts increased; for example, one contract included both the grading work on 13 kilometres of road and a major bridge structure over the CNR. The value of these contracts, which generally do not include material costs, was approximately $213 million.

Reviews and upgrades were undertaken on 11 standard specifications and a new specifications for "Hot In Place Pavement Recycling" was developed. Manuals of updated Standard Specifications were distributed to department staff, consultants working for the department, and other agencies. Work on the review, revision, development and distribution of specifications and special provisions continued throughout the year.

In addition to maintaining an active role in construction programming, the group also participated actively in the development of the Construction Program Management System. Participation continued with the training program for regional grading design personnel.

Contract administration procedures included checking all tenders, processing 11 contract extensions with a value of $590 000, processing 107 letters of credit valued at approximately $11 million, processing 94 subcontract approvals, processing 33 contract unit price approvals and making six applications to Alberta Treasury to increase contract commitments by a total of $509 000. Contractual final clearances were obtained and releases of holdback and letters of credit authorized.

Construction records were maintained, and unit price and cost indexes were calculated. Reports were prepared on construction and other details of the highway system.

Construction Claims and Standards

Construction Claims and Standards audited final payment estimates prepared by district staff for all contracts to ensure that contract payments were according to the contract and department policy.

In conjunction with other branches and regional staff, 53 agreements with engineering consultants were developed for engineering studies, surveys, designs and contract supervision of roadway projects, and with architectural consultants for vehicle inspection station design.

The department's annual Schedule of Rental Rates for Construction Equipment was updated to include newer equipment models, updated serial numbers, minor revisions and increases for specific equipment.

The internal engineering project review program was continued whereby a team, including experienced staff from other branches and districts, reviewed various projects throughout the province to ensure engineering excellence through uniformity of contract interpretation and project management, adequacy of and compliance with design standards. Five projects were reviewed during this year.

This group was responsible for the assessment of contractor's claims pertaining to various roadway and airport construction contracts and for the negotiation of equitable settlements. The majority of claims were resolved through consultation and negotiation between contractor representatives and departmental staff. Third-party claims under the Public Works Act and contract terms were also handled by this section.

Environmental Management

This area provides total environmental management services for the department at the stages of route planning, design, construction and post-construction monitoring of sensitive areas along highways.

All grading designs were reviewed and referred to appropriate government agencies. Special provisions were developed for contract documents as required. Design adjustments and remedial measures were recommended to reduce potential environmental problems on several projects.

All preliminary surveys, grading projects and gravel/sand sources were referred to the Archaeological Survey of Alberta. Four developments required major archaeological mitigation and excavation. One archaeological site where mitigation was required is considered to be very unique to Canada and the findings from this site are being distributed to Canadian and American archaeologists.

Two major environmental assessments were commissioned by the department, including one in the vicinity of a Natural Area which has unique plants and hydrogeology found nowhere else in Alberta.

Liaison was maintained with the Air Quality Branch of Alberta Environment for monitoring the emissions of all asphalt mixing plants on department projects. Recycle asphalt plant locations were evaluated for environmental problems and special provisions were placed in contracts when required.

Construction projects were monitored to ensure compliance with provisions for protection of wildlife and fisheries habitat.

Draft guidelines were provided to District Transportation Engineers for reclamation of borrow pits in order to meet the requirements of the Land Surface Conservation and Reclamation Act.

Departmental representation and input was provided to the Biotechnical Erosion Control Research Project, Alberta Environment, Fish Habitat Protection Committee and the Bank Protection Research Committee, joint committees of the department and Alberta Forestry, Lands and Wildlife.

Materials Purchasing and Administration

A total of 836 purchase orders, valued at $72 million, were placed for highway construction materials.

Liaison with the Purchasing Branch, highway contractors, District Transportation Engineers, Project Managers and suppliers continued, resulting in little or no delay or project shutdown due to material delivery.

Drainage and fencing material having a value of approximately $3 million was detailed to highway construction projects from the department's central service facilities at Edmonton and Airdrie.

Accounts payable functions were carried out for two highway construction camps as well as Contracts, Materials and Design Engineering branches.

Bonding, insurance policies and final signatures were obtained for 227 construction contracts.

Design Engineering

Design Engineering is responsible for providing the following services for all primary highway, secondary highway, airport and ancillary road construction program projects:

- preparation of information for preliminary surveys and right-of-way requests
- development and monitoring of geometric design and drafting standards
- provision of detailed geometric design and drafting services
- grading program recommendations
- provision of computerized earthwork design quantities and preparation of contract design packages
- co-ordination of utility relocations, and development of detailed project construction schedules for contract provisions
- administration of primary highway designations
- co-ordination and management of computerized design and earthwork final quantity processing systems including co-ordination and management of computer database storage and retrieval files for departmental graphics, survey and design data
- training and support to engineering personnel in the computerized area of roadway design, drafting and earthwork applications
- co-ordination and design of traffic signing for highway intersections.*

* Function and personnel transferred to the new Traffic Engineering Section in August 1988.

Highlights of the work accomplished during the reporting period follow:

Roadway Design

Roadway Design is responsible for developing, maintaining and implementing geometric design standards, issuing right-of-way and preliminary survey requests, co-ordinating the ordering and delivery of construction materials, performing and co-ordinating detailed geometric design of grading projects, and providing training to department staff in geometric design and co-ordination.

During the 1988/89 fiscal year Roadway Design staff continued to implement and support decentralization of grading design activities to districts. Staff organized and provided three two-week training sessions on geometric design and co-ordination to 70 district staff. A half-day session on geometric design was attended by all District Transportation Engineers. In addition Roadway Design staff provided direct training of computerized highway engineering design systems to district staff at High Prairie, Calgary and Edson District Offices. With design decentralization, design co-ordination and right-of-way procedures were reviewed and revised. In total district staff completed 34 design projects totalling 321 kilometres in the first year of design decentralization.

In the area of design services, Roadway Design designed 36 projects totalling 351 kilometres. Roadway Design also prepared terms of reference, co-ordinated and checked six grading projects commissioned to engineering consultants.

Considerable progress was made in advancing survey requests and project design to accomplish the construction program on a desired schedule. Thirty-four surveys were issued (to district offices) between April 1, 1988, and October 30, 1988. In total, 58 preliminary surveys were issued in the 1988/89 period. Additionally, eight design projects were completed for future tender.

In the 1988/89 period, Roadway Design initiated a Culvert Study and a Geometric Improvement Plan. The objective of the Culvert Study is to provide recommendations on culvert material selection methods based on environmental, geographical and cost-beneficial factors. Specifications for supply and installation will be developed in co-operation with other branches. The development of a comprehensive Geometric Improvement Plan was initiated in response to corporate goals. The major thrust of this Plan will be to assess the geometric parameters of existing primary and secondary highways and to recommend appropriate improvements to meet current design standards.

In support of design decentralization, the Departmental Geometric Standards Advisory Committee was strengthened with additional representation from the region and dedicated manpower from Roadway Design to work on design standards issues. Four design topics - superelevation, lane and shoulder widths, tight diamond interchanges and secondary highway standards - were assessed and completed in 1988/89 period.

Utilities and Planning

Utilities and Planning is responsible for co-ordinating utility relocation/accommodation and for removal of other physical encumbrances to facilitate timely construction of roadways. In addition this section co-ordinates all phases of work carried out on vehicle inspection stations, arranges for railway crossing agreements, established utility drafting standards, prepares all utility plans, and co-ordinates high load corridor projects.

During this period 10 Railway Agreements were obtained for temporary haul road crossings, drainage culverts and common ditches.

Accommodation or relocation was arranged and co-ordinated for 320 pipelines, 290 kilometres of powerlines and 360 kilometres of telephone cables. More than 275 detailed pipeline crossing plans were prepared and agreements were concluded for each.

Also during this reporting period this section, with the assistance of Motor Transport Services Division, developed the Vehicle Inspection Station classification and facility standards and prepared a Vehicle Inspection Station Construction and Maintenance Program Report, outlining the construction and maintenance plan for the next five years. Design and construction co-ordination was also provided for the installation of new portable weigh scales at the Rocky Mountain House and Red Deer Vehicle Inspection Stations and for renovations to the Vermilion Station.

The High Load Corridor, which provides free movement of loads up to nine metres high from Calgary and Edmonton to Fort McMurray and Cold Lake, was extended by permanently raising or burying the aerial utility lines along Highways 19, 60 and 37 from Nisku to Alsike. The corridor now covers a total of 1493 kilometres of the highway system.

Design Support

Design Support manages and provides training on computerized design systems, computer graphics systems, and the final earthwork quantities system. Computerized and conventional drafting services are also provided in support of the department's many programs.

Approximately 1900 engineering plans were prepared for preliminary surveys, right-of-way acquisition, airport and roadway design, specialized equipment design, contract tendering, construction and maintenance programs.

Evaluation of three micro based design/earthwork programs was completed and a decision was made to purchase a site licence.

The final earthwork quantities computer system (FEQS) was used to generate information on 99 roadway grading projects. In total, processing was finalized on 39 projects covering a total of 554 kilometres. A new release (Number Three) of FEQS was put into production.

During this period 38 "Electronic Fieldbook" data collectors were used by district field staff on 40 grading projects and 50 preliminary surveys. These devices helped to expedite date entry for more than 930 kilometres of survey cross-section by transferring information over telephone lines to the central data processing facilities in Edmonton.

Design Support staff also provided the following technical training and assistance:

- one hundred and nineteen staff were trained to use FEQ release 3.0 for processing grading finals
- fifty-three district staff were trained to use electronic fieldbooks for collecting and transmitting survey data
- forty-eight staff were trained to use ICES ROADS for the design of roads
- thirty-six staff were trained to use Microstation/PC for computerized drafting.

The Design Engineering Menu Systems Manual was revised in preparation for new options to browse or print the manual from any TSO terminal in the province.

Special Projects

Special Projects is responsible for provincial and community airport conceptual planning and design, vehicle inspection station buildings design and construction delivery, primary and secondary highway signing design and field liaison, and primary highway designation order preparation.

Since the completion of the bulk of new airport construction, emphasis in the airport program has shifted to rehabilitation and enhancement. Typically, this work may include asphaltic pavement improvements, slurry seal coat work, drainage improvements, runway lighting modifications, runway painting markings, taxiway upgrading, and runway lengthening. Five existing airports: High Level, Fairview, Cooking Lake, Valleyview and Smoky River received upgrading to varying degrees.

All signing designs for new intersections, and interchanges identified on the highway program were drafted and completed as required. Two primary highway designation amendment orders were completed and gazetted.

Due to departmental reorganization, the Assistant Director of this section and the staff of the Signing Drafting Group were transferred to the new Traffic Engineering Section in August 1988. The airport and highway designation functions remained in Design Engineering.

Materials Engineering

Materials Engineering is responsible for providing management, engineering and technical standards and services for aggregates, highway surfacing, geotechnical investigations and materials testing.

Some of the functions include:

- location, acquisition and management of aggregate materials
- structural design of road and airport bases and pavements
- development and implementation of testing and quality control standards
- provision of laboratory materials testing and pavement mix design services
- provision of pavement inventory, performance monitoring, design standards and surfacing program recommendations
- provision of engineering for landslides, bridge foundations and soft ground conditions, erosion control, and other geotechnical matters
- training and equipping of department personnel for materials testing
- other materials-related support for the department's construction and maintenance programs.

Administration

The organization remained unchanged from the previous year and carried out essentially the same duties and responsibilities. The department strategic business plan continued to develop within this area and after four consecutive years of implementation, favourable results have been recognized with increased emphasis and achievements on the established goals and objectives. Significant improvements in the quality of highway surfacing projects have been identified. Many research and development projects were advanced to address future needs and to maintain state-of-the-art technology.

Computerized data processing continued to be developed within the section in all areas, and additional equipment and software have enabled this area to increase the efficiency and effectiveness of its services.

Aggregate Services

Aggregates Services is responsible for managing the aggregate supplies required for the department's construction and maintenance programs. This includes the location, sampling, assessment, acquisition and allocation of aggregates and the provision of aggregate-related specifications, and recommendations and standards for aggregate source reclamation.

During the year, 11 aggregate prospecting crews, one consultant and one district staff member located approximately 21 million cubic metres of gravel and 2.6 million cubic metres of sand.

A detailed assessment of aggregate sources was provided for 114 projects to determine the best blend of local aggregates appropriate to produce high quality pavements at reasonable cost.

During this period added emphasis has been placed on new methods of locating aggregate sources for this depleting, non-renewable resource.

Geotechnical Services

Geotechnical Services is responsible for providing geotechnical investigation, analysis and design services and standards for the planning, design, construction and maintenance of roadways, airports and bridges.

During the past year six field crews investigated 52 bridge foundation sites and 96 preliminary highway and airport soil survey sites. The section provided engineering services for nine landslide sites, eight lime and stone column projects, two concrete pile locations, two wick drain installation sites and 10 trenching projects. This work contributed to 46 193 metres of drilling and 6910 metres of trenching. Private drilling companies provided rental equipment for the total drilling program. Seven private engineering consulting firms were employed on 29 of the field projects.

In addition to its routine activities this area continued to provide major engineering contributions to the development of the highway system relating to the Peace River Pulp Mill (Daishowa) project at Peace River and the new pulp mill planned east of Athabasca. These two large projects required a considerable proportion of staff time and effort.

Surfacing Services

Surfacing Services is responsible for establishing highway surfacing design standards and procedures, and for providing designs for the department's primary highway, secondary highway and airport surfacing programs. Pavement rehabilitation and seal coat programs are recommended, based on continuous monitoring and evaluation of the condition of the system.

Other section responsibilities include:

- preparation of specifications for surfacing materials and construction
- initiation of orders for asphalt, Portland Cement and other stabilizing agents
- provision of technical and professional assistance and advice with respect to surfacing matters
- continuous assessment of the quality being achieved on all department surfacing projects.

During the year, the pavement evaluation unit continued to gather information on the strength, smoothness, visual condition and skid resistance of highway and airfield pavements for rehabilitation and reconstruction programming and design purposes.

Seven Benkleman Beam crews conducted 70 416 tests on 4727 kilometres of roadway. One Dynaflect crew performed 8827 tests on 493 kilometres of roadway. Two high speed roadmeter crews measured the smoothness of 20 096 lane-kilometres of roadway. One pavement condition rating crew rated 3244 kilometres of roadway. Friction testing was performed on 4017 lane-kilometres of paved roadway.

Special material investigations were carried out on subgrades and pavements for design and rehabilitation purposes and for the Strategic Highway Research Program (SHRP). These investigations required 61 metres of coring on 36 projects and 148 metres of drilling and sampling on 11 projects.

Sixty-three frost probes and three newly installed electronic frost probes were serviced and monitored for seasonal road ban protection of the primary highway and secondary highway system throughout the province.

The department's first falling weight deflectometer was acquired for more efficient and precise measurement of pavement strengths. The newly developed Automatic Road Analyser was transferred from Research & Development Branch and placed into production for the high speed measurement of pavement rutting and roughness. This device was used to investigate rutting and roughness on 1072 kilometres of paved roadway. Both these devices are proving invaluable in the production of efficient pavement designs and pavement rehabilitation priority decisions.

The quality monitoring unit received, stored, analysed and interpreted quality control data from 56 surfacing projects. It provided detailed and summary evaluations of the quality of 1988 surfacing construction. It also assisted in updating specifications, training construction staff and performing various construction-related research activities. Staff monitored projects tendered under end product specifications, inspected Provincial and Community Airport pavements and made recommendations regarding their rehabilitation; and inspected, analysed and provided technically valid solutions for many problem projects.

The surfacing design unit developed 366 surfacing designs with quantity and cost estimates for preparation of 199 contract design packages consisting of:

- twenty-three district crushing
- ten seal coat crushing
- thirty-two first course gravel surfacing
- forty-three granular base course
- nine cement stabilized base course
- fourteen combined base course and paving
- forty-one asphalt concrete paving
- nineteen reclaim and recycle paving
- five seal coat application
- three miscellaneous projects.

The unit also developed the department's seal coat program and prepared 16 chip washing and 33 chip application estimates for the department's seal coat camp operations involving over 1320 lane-kilometres of roadway.

Testing Services

Testing Services, through the Transportation Laboratory, is responsible for providing services and standards for materials and quality control testing, mix designs, materials inspection training and certification, test equipment supply, research and development of new materials and processes, and engineering and technical support for field construction projects.

The laboratory services unit performed 62 779 tests on 22 939 samples of soil, aggregate, asphalt, paint and other construction and maintenance materials. One hundred and sixty Marshall mix designs and investigations were performed on asphalt pavement materials. Twelve soil cement mix designs were carried out.

Special testing and investigations programs included:

- the melting ability of salt
- aggregate preparation for the Canadian Asphalt Mix Exchange (Alberta Transportation and Utilities acted as the host for the event)
- use of manufactured fines for enhanced stability mixes
- Ph and resistivity testing of soil and water for estimating the service-life of culverts.

The section continued active participation in a number of sample and testing exchanges with American Association of State Highway and Transportation Officials (AASHTO) (soils, asphalt mix and aggregates), Alberta Ready Mix Concrete Association (ARMCA) Concrete Testing and the Canadian Asphalt and Asphalt Mix Exchange.

The field services unit visited 76 projects to monitor and assist with plant calibrations, testing procedures, quality control and construction problems. Technical assistance was provided to the department Project Review Committee on six projects. Staff were assigned on a full time basis to five End Product Specification (EPS) projects to monitor testing and assist the project manager on quality control issues.

The equipment unit supplied 501 field test kits to field construction projects throughout the province. This unit implemented requirements of the recently introduced Workplace Hazardous Materials Information System (WHMIS) Program, which necessitated the supply of materials safety data sheets and worksite labels to all field projects for all hazardous products.

The special projects unit continued investigation of many products and trial projects. Twenty-five projects incorporating previously constructed test sections were monitored for performance behaviour. Eleven new investigations were undertaken, including a rutting study, recycling of SC3000 material, reinforcement of pavement cracks, polymer modified asphalt (PMA) test section, aggregate top size comparison, high float PMA seal coat test section, segregation, crusher fines, hot in-place recycling (HIPR), Durapave slurry seal and Styrelf seal coat.

The staff development unit presented 15 courses over 81 course days to 250 technologists and project managers for 1408 person-days of training. A total of 520 manuals of the six-manual Materials Engineering Branch (MEB) series were distributed to course participants, regional offices and consultants. A five-day surfacing seminar for 24 department project managers was co-ordinated and arranged by this unit.

Property Services is responsible for policy development and standards for land acquisition and management and the integrity of the department's land holdings.

Specific responsibilities include:

- establishing provincial standards for all right-of-way negotiation, purchase and management
- monitoring and accepting agreements negotiated by regional staff on patented, non-patented, Indian and Metis land
- establishing land transfer procedures and policies with the federal department of Indian and Northern Development
- representing the department on all interdepartmental committees concerned with Indian and Metis affairs
- reviewing and clearing encumbrances prior to payment for right-of-way
- administering expropriation proceedings under the Expropriation Act
- legally surveying and registering land acquired for transportation facilities
- processing bylaws and applications for road closure or cancellation pursuant to the Public Highways Development Act, the Municipal Government Act, and the Land Titles Act
- managing documentation related to payments in lieu of municipal taxes and department ownership of property.

The functional area of the branch was comprised of the following:

Indian Band Negotiations

An interdepartmental committee was established to develop policy with regard to fencing along primary highways through Indian Reserves and the problem of stray animals.

A new initiative to investigate the status of and procedures for negotiations with Indian Bands was commenced.

Right-of-Way Requests

Approximately 134 right-of-way requests were enhanced with details of ownership and area requirements and forwarded to regional property managers to enable negotiations with landowners.

Negotiation

This area assisted with negotiations, monitored land values throughout the province, and determined acceptability of purchase agreements for payment. A total of 1070 agreements were reviewed and accepted.

Appraisal

A total of 35 independent appraisals were commissioned from companies throughout the province as aids to negotiation or as required by the Expropriation Act.

Expropriation

During the year 15 new expropriations were commenced and 10 agreements were signed under Section 30 of the Expropriation Act. The following table summarizes this activity:

Expropriations carried over	Full	14
	Section 30	18
New expropriations	Full	15
	Section 30	10
Expropriations finalized	Full	21
	Section 30	10

Compensation

The following payments were approved for a total $6 357 667:

	Current Funding	Stock Advance Fund	Land Purchase Fund
Primary and Secondary Highways	$3 089 429	$2 147 118	$ 475 230
District Roads	645 889	–	–
Airports	–	–	–
	$3 735 318	$2 147 118	$ 475 230

To facilitate highway planning, negotiations and clearance of encumbrances, 14 000 title searches were made in Edmonton and 6800 in Calgary.

Property Management

Administration of department lands is summarized as follows:

Leases (136) (Revenue)	$ 175 742
Taxes (Paid to Municipalities)	$ 54 159
Grants in lieu of taxes	$ 508 841

Legal Surveys

During the reporting period 265 legal surveys were completed for land required for transportation facilities. Of these, 147 were commissioned to surveyors in the private sector involving 66 different surveyors for a total cost of $487 270.

Metis Settlements

Completion of the road inventory and legal survey of public roads for filing with the Land Titles Office continued.

Conveyancing

This procedure represents the last step in the title changes and involves careful checking and final transfer of title.

A total of 368 road plans were registered.

Titles received	64
Notifications to Registrar cancelling roads	486
Letters of abandonment	54

Road Closures

A total of 169 municipal bylaws were reviewed and prepared for the Minister's signature allowing municipalities to close roads for public travel, lease or sale.

In mid 1988, Operational Planning became a group dedicated to defining the future requirements of the provincial roadway system. In this group are the newly created Traffic Engineering, which analyses existing operational problems and defines the movements and volume levels to be accommodated in the future; Roadway Planning, which defines the location of new routes and develops functional plans to improve existing routes; and Referral Services, which advises potential developers of future highway plans in order that development plans will be compatible with future transportation planning, and to ensure that right-of-way will be available for planned future developments.

1988/89 EXPENDITURE

Executive Director and Special Projects		$ 177 040
Traffic Engineering		2 078 555
Roadway Planning		
Design Services	1 148 850	
Location Services	2 628 835	3 777 685
Referral Services		234 000
		$ 6 267 280

Highlights of the sections follow:

Referral Services

Referral Services co-ordinates future roadway plans with adjacent development. This involves considerable close liaison with development proponents, their consultants, and the communities. The developers gain an understanding of future road plans. The road authorities, both provincial and community, are able to ensure that current land developments do not prejudice roadway developments in the future. This careful liaison benefits all concerned by identifying, at an early stage, how both land development and roadway access can best provide for the safety of the travelling public.

This development liaison and co-ordination is directly related to the health of the Alberta economy. The stable and confident economic outlook resulted in an increased level of land development/roadway co-ordination in 1988.

Highway planning information and guidance is provided to the regional and district offices to assist them in the consistent application of the department's responsibilities under the Public Highways Development Act and the Alberta Planning Act. These responsibilities are primarily in the areas of land use, development and subdivision proposals in the vicinity of the primary highway system. Other branches and external government agencies are also provided with information and planning expertise as required.

Referral Services administers the department's approval of utility placements along the primary highway system under terms of the Public Highways Development Act, Pipeline Act and the Water, Gas, Electric and Telephone Companies Act. Utility companies and owners are advised of planning highway improvements to minimize costly relocation of utilities. Standards for utility installations are developed and maintained to protect the highway plan and user.

Roadway Planning

Roadway Planning provides transportation planning and predesign services in support of the department's primary highway, secondary highway and other road programs.

Location Services and Design Services liaise with:

- the applicable branches or sections within the department
- other government departments through the Location Study referral system process
- other planning agencies
- the local authorities
- the general public in finalizing standards, alignments and specific design features of a project.

The majority of work undertaken in these areas is provided to the department Regional Operations or Design Engineering staff for detailed design and project implementation.

Location Services

Location Services determines alignments, access control and standards for:

- new and existing primary highways scheduled for upgrading and in some cases for longer range planning purposes
- new and existing secondary highways, where requested to do so by the local authorities through Regional Operations as part of the ten year secondary highway program
- local roads where requested by the local authority
- resource roads as part of the Roads to Resources Program carried out in conjunction with Alberta Forestry, Lands and Wildlife
- special projects associated with tourism, forestry and other resource related development in the province
- roads involving major bridge structures.

Road Corridor and Alignment Studies

Studies were completed on 48 projects and another 135 projects were underway at the end of the reporting period. Some of the major projects completed were:

- Highway 2A in the Carstairs area
- future Highway 11 from east of the Joffre gas plant to Highway 12
- Highway 16 at Wildwood
- Highway 40 from 12 kilometres south of Highway 16 to Highway 16
- Highway 49 from Rycroft to east of the Burnt River crossing and west of the Smoky River at Watino
- a possible future Highway 56 extension from Highway 1 south to SH 845
- sections of Highway 88 at Utikuma Lake and at the Tall Cree Indian Reserve
- Secondary Highway 524 at Hays
- Secondary Highway at the McGregor Reservoir crossing
- Secondary Highway at the Rosebud River crossing
- Secondary Highway 885 at the Forty Mile Coulee crossing north of Highway 61.

Location study work was also completed on sections of Highways 3, 21, 53, 61 and 64, on sections of SHs 502, 585, 596, 631, 742, 791, 792, 812, 820, 822, 835, 859, 873, 897 and 899, and on numerous local roads throughout the province.

As well, work was completed on various major road projects associated with the Daishowa pulp mill development north of Peace River.

Work was also carried out to review infrastructure requirements for several major forestry projects, including the proposed Proctor and Gamble sawmill northwest of Manning, the proposed pulp mill east of Athabasca. Preliminary alignment projections were carried out for all of these projects; and public meetings to obtain feedback, were held for the proposed project east of Athabasca.

Location Surveys

Surveys were completed on 14 projects totalling 273 kilometres. These included:

- Peace River Pulp Mill (Daishowa) west access (SH 686)
- approximately 70 kilometres of the Berland Resource Road
- approximately 45 kilometres of the Pembina Resource Road (working with consultants)
- Secondary Highway 549 west of Okotoks
- Secondary Highway 813 from north of Sandy Lake to Wabasca
- Secondary Highway 881, junction SH 868 to north of Heart Lake
- Secondary Highway 881, North of Imperial Mills to Conklin.

Survey staff from Regional Operations assisted in several of the projects.

Photogrammetric Engineering

In addition, the Photogrammetric Engineering sector of Location Services Section provides airphoto, orthophoto and other mosaic and photogrammetric mapping services for the department and for the branch.

Details of work performed during the reporting period were:

- 6075 kilometres of new aerial photography obtained by contract
- two hundred and eleven kilometres of orthomosaics produced
- 9870 kilometres of standard mosaics constructed
- three hundred and thirty-five kilometres of photo control surveys completed on 19 projects
- 326 668 acres of contour mapping completed from 314 triangulated models
- Township and property boundary plans computed and plotted on 14 study projects.

The process for preparation of graphic system files and plotting of project study and mosaic/profile report plans was refined. Along with the study report plans, it is now possible to pass on the graphic file information that was used to produce the plans and they can be used in further planning, design and implementation of each project.

Design Services

Design Services is mainly engaged in roadway planning studies and determining functional design of intersections, interchanges, four-lanes and access control. Planning work is carried out to co-ordinate plans with commercial, industrial, residential and utility developments adjacent to primary highways. This section also undertakes roadside landscape design, including major rest areas.

Highlights of work completed in Design Services Section:

- preliminary designs and revisions were completed for 11 interchanges, 21 intersection improvements and 32 access control plans/reports
- approximately 30 projects involving design reviews associated with the Calgary and Edmonton ring roads were completed
- thirty-seven projects, including engineering reviews, cost estimates, right-of-way plan preparation, utility placement reviews, geometric design research and other miscellaneous projects were completed
- landscape design plans and field assistance were provided for five projects
- eighty-five projects were underway at the end of the reporting period.

Some of the major projects completed during the fiscal year include:

Functional Planning and Preliminary Design

- Preliminary design for interchanges at the junction of Highway 2 and McKenzie Road at Red Deer, Highway 14 at Whitemud Drive in southeast Edmonton, Highway 16X and Century Road near Spruce Grove, and revisions for the Highway 2 and Highway 11 interchange at Red Deer. Planning input was provided to the Environmental Assessment Study for the Wagner Bog Natural Area relating to the local road and interchange requirements at the junction of Highway 16X and SH 794.
- Major reviews and preliminary designs for intersections at the junction of Highway 2 and SH 686 near Peace River, Highway 14 and 23rd Avenue in southeast Edmonton, Highway 2A and Highway 53 in Ponoka, Highway 3 and Highway 6 at Pincher Station, Highway 20 and SH 771 south of Rimbey, and Highway 35 and a local pulp haul road near Dixonville.
- Preliminary designs and access control plans/reports for improving Highway 2 from Stavely to Claresholm, Highway 2 from Claresholm to Granum, Highway 2 North of Bowden to Innisfail, Highway 2A Didsbury to Bowden, and Highway 2A north of Red Deer to Blindman River. Functional planning for the multilaning of Highway 2 Granum to Fort MacLeod and Highway 3 from Fort MacLeod to Monarch and Highway 16 from Innisfree to east of Mannville are underway.
- Access control plans and revisions for improvements on the primary highway through the urban areas of Athabasca, Canmore, Cochrane, Drayton Valley, Grimshaw, Lacombe, Ponoka, and Westlock. Access control and other improvement plans for the highways through Cardston, Clairmont, Coalhurst, Coutts, Fort MacLeod, Hythe, Innisfail, Millet, Red Deer, Rocky Mountain House, Spirit River, and Whitecourt are underway.
- Review of engineering designs and access requirements for major developments adjacent to primary highways include the local road infrastructure associated with a hospital site at Slave Lake, a proposed interchange design and a staging plan for Highway 2 in Westbank, Peace River, a railway grade separation on Highway 41 in Vermilion and a proposed partial interchange on Highway 2 in downtown Peace River.
- Continued liaison work with Alberta Environment on the rationalization of the transportation and utility corridor including the integration of adjacent land use, development and utility placements associated with the Calgary and Edmonton ring roads.
- Continued liaison with the cities of Calgary and Edmonton in reviewing and providing input to their design and standards as prepared by the cities or their consultants related to the urban ring roads.

Traffic Engineering

During this year Traffic Engineering was established to bring together and strengthen a number of traffic related functions that have in the past reported to several directors in different areas of the department. Traffic management, traffic control, and traffic data collection were considered to logically fit together as a unit and are the prime activities of the section. These specialized traffic engineering functions support the department's responsibilities for transportation system planning, design, construction and maintenance, as well as the requirements for safe and efficient movement of people and goods.

Achievements in the major areas included:

Traffic Management and Control

Approximately 200 plans were prepared illustrating signing and pavement marking requirements for new highway construction, localized improvement projects, and enhancement projects.

Work was begun on developing new standards for guardrail and traffic barriers to be used to protect motorists from roadside hazards.

Traffic movements and conflicts were studied at approximately 200 sites and remedial measures were proposed where necessary to minimize collisions, delays, and public concerns.

The program of improving railway crossings on primary highways and municipal roads was continued. Applications were made to the Canadian Transport Commission for installation of automatic protection signals at 25 crossings and other improvements at 10 crossings. Additionally, rail lines in the Red Deer, Stettler, and High Prairie area were inspected and recommendations for future improvements were provided to the municipalities. In total, approximately 700 crossings were checked and in some cases improvements have been completed with the assistance of Regional Operations.

During the period, new traffic and pedestrian control signals were installed at five important intersections bringing to 110 the total number of traffic control signals being maintained and operated.

The section continued to manage the primary highway illumination program. Seventy-eight lighting projects were completed with two-thirds of these being on highways through urban areas. A number of lighting systems which had been in use for more than twenty years were upgraded to current standards. High mast streetlights were installed at Highways 1 and 22. In other locations the use of taller poles had resulted in the need for fewer poles, reducing power consumption costs. In each new installation or reconstruction of existing lighting systems the poles were fitted with breakaway features or moved further away from the road surface as a safety measure.

Traffic Data Systems

Data Systems provides an extensive array of data for use by the department, other government agencies and private industry.

A total of 736 manual traffic data collection counts were conducted at 382 intersections.

Mechanically collected traffic count data was obtained at 137 permanent and 113 non-permanent highway sites.

Vehicle, occupancy, and trip information was collected during origin-destination surveys at 30 sites.

A total of 10 700 kilometres of primary and secondary highways were videologged as part of an ongoing video information program.

In addition to data collection the branch has a responsibility for data analysis. There continues to be growing demand for traffic volume estimates, growth projections and traffic forecasts to support highway programming, development decisions, and manpower and resource planning by outside agencies such as the RCMP.

Overall growth in traffic on the provincial highway system was calculated to be approximately three per cent.

Bridge Engineering Branch

Bridge Engineering Branch provides bridge design, bridge construction structural engineering and river engineering for departmental programs. Its services consist of preliminary engineering, detailed design, material acquisition, contract preparation, construction and liaison with regional bridge staff on all bridge-related matters. These functions of the branch are accomplished within five organizational sections: Bridge Planning, Bridge Design, Bridge Materials, Bridge Construction, and Bridge Services.

Services were supplied in four major program areas: primary highway bridge construction, secondary highway and local road bridge construction, primary highway bridge maintenance and secondary highway and local road bridge maintenance.

Bridge structures were designed and built to accommodate expansion and upgrading of the province's primary highway system. These structures ranged in size from 1500 millimetre diameter culverts to major crossings, such as the CNR Overpass on Highway 16 at Obed.

Work continued on a program to strengthen, or in some cases replace the weaker structures on the primary highway system to accommodate legal truck loadings of 62.5 tonnes gross vehicle weight.

Design, construction and major reconstruction of bridges on secondary highways and local roads, again ranging from culverts to major structures, was also undertaken. During the year planning and design were completed for a major new crossing of the Peace River at the site of the Daishowa pulp mill north of the Town of Peace River. The Peace River Bridge design, as well as the construction of the Peace River Pulp Mill (Daishowa) Railway Overpass, the Nordegg River bridge and the Dismal Creek bridge, were all carried out under the department's Resource Road Improvement Program.

Maintenance activities were provided for bridges on primary highways as well as on secondary highways and local roads. Bridges were inspected, maintenance work planned and appropriate work performed. Severe floods in early July, 1988 on the north slope of the Swan Hills required extensive rehabilitative work on bridges over Boulder Creek, Island Creek and Sawridge Creek as well as at a number of lesser sites. Stage 1 in the development of the computerized bridge inspection and maintenance system was completed and implemented, and staff training in its use continued. The program to restore and protect bridges from attack by de-icing salt has continued to expand in response to the need. A bridge paint evaluation system was initiated with the goal of achieving the most cost-effective paint methods and cycles. Cathodic protection to inhibit corrosion of metal culverts was applied at several locations on the primary system.

In addition to the major work performed in these areas as a direct responsibility of the Bridge Engineering Branch, engineering services were also provided for programs administered by other branches and departments.

The branch was again assigned responsibility for the design and construction of new bridges related to the rehabilitation program for main canal systems in southern Alberta. Overall responsibility for this program belongs to Alberta Environment with funding by the Alberta Heritage Savings Trust Fund. Fifteen bridges were built under this program during this period. Branch staff also provided bridge engineering input into the administration of the department's Urban Transportation Program.

Major Bridge Construction Projects

PINCHER CREEK, east of Pincher Creek: The existing narrow steel truss which had substandard load capacity was replaced by a new bridge on an improved alignment. This crossing serves as an important alternative connector between the Town of Pincher Creek and Highway 3.

STURGEON RIVER, northeast of Villeneuve: A new bridge was constructed to replace the existing narrow steel truss which was substandard in both load capacity and alignment. The new bridge was build on an upgraded and realigned road, and will benefit the agricultural community.

NORTH SASKATCHEWAN RIVER, North of Devon: In conjunction with the upgrading of Highway 60, construction was completed on the second of two new bridges built to improve safety and provide a four-lane facility through the river valley.

CNR OVERPASS, Obed Summit: Construction commenced on the four-laning of Highway 16 through this area which included the construction of a precast concrete arch tunnel over Canadian National's mainline tracks near the Obed Summit. The improved alignment will contribute to increased safety for the motoring public. The existing overpass will remain in service to accommodate local traffic.

SHEEP RIVER at Turner Valley: A new three span bridge was constructed to replace the existing narrow private bridge. The new bridge will provide increased road width and load capacity in conjunction with improving the alignment through the area.

PEACE RIVER PULP MILL (DAISHOWA) RAILWAY OVERPASS, northeast of Peace River: Two concrete girder bridges with reinforced earth retaining wall abutments were constructed to overpass the Daishowa railway line as part of the roadway infrastructure requirements of the Peace River Pulp Mill (Daishowa) project. Each bridge will handle one way traffic. The bridges were constructed to accommodate the geometric requirements at the site and to increase the safety to the motoring public.

CARROT CREEK, east of Edson: Construction continued on the four-laning of Highway 16 through this area which included the twinning of the Carrot Creek bridge to carry eastbound traffic. The existing bridge will remain in service to carry westbound traffic.

HOUSE RIVER, north of Wandering River: In conjunction with the Highway 63 upgrading program, the existing bridge which was substandard in width and loading was replaced with a modern structure. The new steel girder superstructure was placed on the existing piers. The new crossing will improve the safety and convenience to the travelling public.

MEDICINE RIVER, north of Eckville: A new three-span steel girder structure was built on a new alignment to aid in the development of this route as a main market road in the County of Lacombe.

DISMAL CREEK, southeast of Edson: The existing precast concrete bridge was in poor condition and inadequate for the needs of heavy industrial traffic in the area. A modern three-span steel girder structure was constructed on an improved gradeline. The project was a spot improvement and part of an ongoing program to upgrade Wolf Lake Road on the Resource Road Improvement Program.

NORDEGG RIVER, south of Lodgepole on Sunchild Road: Sunchild Road is being developed as a major north-south arterial road which serves resource and recreation traffic between Rocky Mountain House and Lodgepole. The narrow steel truss bridge at the Nordegg River had loading and clearance restrictions. It was replaced with a steel girder structure on an improved gradeline. The new bridge is a major benefit to the logging industry.

OTHER BRIDGE CONSTRUCTION PROJECTS

On Primary Highways

	HWY NO.	PROJECT	BRIDGE TYPE
River Bridges			
**	2	Burnt River, Rycroft	Widening, steel girders
**	10X	Rosebud River, 9th south of Rosedale	Salvage truss
**	10X	Rosebud River, 1st south of Rosedale	Salvage truss
*	22	Elbow River, Cochrane	Steel girders
**	28	Stoney Creek, Vilna	Concrete girders
**	36	Irrigation Canal, Vauxhall	SPCSP culvert
**	36	Vermilion River, Two Hills	Concrete girders
**	40	McLeod River, Mercoal	Salvage truss
**	40	Veronique Creek, Grande Cache	SPCSP culvert
	49	Drainage Ditch, Girouxville	SPCSP culvert

On Secondary Highways and Local Roads

River Bridges			
*	SH 757	Paddle River, Sangudo	Steel girders
**	local	Dogpound Creek, Harmattan	Strengthen steel truss
*	local	Medicine River, Benalto	Steel girders
**	local	Lee Creek, Cardston	Concrete girders
	local	Strawberry Creek, Thorsby	Concrete girders
*	local	James River, Sundre	Steel girders
**	local	Kneehills Creek, Sunnyslope	Concrete girders
*	local	Little Red Deer River, Water Valley	Steel girders
**	local	Milk River, Del Bonita	Salvage truss
**	local	Rosebud River, Irricana	Salvage concrete girders
**	local	Henderson Creek, Baytree	Salvage truss
**	local	Bald Mountain Creek, Grovedale	Salvage truss
**	local	Threehills Creek, Torrington	Concrete girders
#	local	Rat Creek, Wadlin Lake Road	Relocation due to washout
**	local	Threehills Creek, Torrington	Concrete girders
**	local	Smuts Creek, Watridge Lake Road	Salvage truss

* Completed in 1988/89 but started in a prior year.
** Commenced in 1988/89 but carried over into 1989/90.
# Commenced in 1987/88 but carried on into 1989/90.

Special Programs

Strengthening Program for 62.5 tonne loading:
  5 river bridges on primary highways
  3 river bridges on secondary highways and local roads
Flood rehabilitation:
  3 river bridges on primary highways
Bridges over SMRID and WID Canals, for Alberta Environment:
  15 standard concrete girder bridges

Construction & Reconstruction of Standard Type Bridge

TYPE	PRIMARY HWYS	SECONDARY HWYS & LOCAL ROADS	TOTAL
Standard	1	36	37
Culvert	61	147	208
	62	183	245

Bridge Repairs

TYPE	PRIMARY HWYS	SECONDARY HWYS & LOCAL ROADS	TOTAL
Standard	30	170	200
Culvert	30	40	70
Major	106	133	239
	166	343	509

Equipment Supply and Services Branch

Equipment Supply and Services Branch provides fleet, materials and shop services to the department's program branches. Funding for these services is provided through the Transportation Revolving Fund on a cost recovery basis.

Audited financial statements for the Transportation Revolving Fund for the year ended March 31, 1989 are shown on pages eight to eleven under the Administration Division's section of this report.

The services provided by the branch are delivered through three sections:

Equipment Management

Through the Transportation Revolving Fund, the branch maintains a fleet of mobile equipment which is employed by the program branches to discharge their responsibilities in the construction and maintenance of roads, bridges and airports within the provincial transportation network. Fleet units are also used by field operations staff in Motor Transport Services Division.

The major thrust during this period was directed toward the development and implementation of the operations modules of the Equipment Management Systems (EMS). In particular the modules dealing with fleet management were implemented during the year:

- Equipment Record and Warranty
- Preventive Maintenance
- Fuel and Oil Control
- Depreciation and Capitalization
- Defect and Modification Reporting.

EMS now provides on-line reporting and control of these significant information needs for the Equipment Management Group.

Significant efforts were continued in the matching of fleet size and mix to customer needs. The emphasis on preventive maintenance ensured that the fleet availability remained at a satisfactory level thereby supporting branches in meeting their operational goals.

The refinement of the engineered specifications for fleet equipment acquisition was continued. This effort is an ongoing requirement to ensure the department's equipment needs are adequately met and supplier responsibility for after sale service and support is adequately documented.

Through new engineering technology, modifications and evaluation programs took place in an effort to improve safety, productivity and to reduce maintenance costs. Examples of these endeavours include: front mounted snowplow assemblies, closed loop hydraulic systems and new configurations of sand/salt delivery mechanisms. In addition a program with Research and Development, Planning and Development Division was initiated to improve the visibility of the sand/plow trucks during operation.

The department's replaced and surplus equipment was disposed of through public auction at local facilities throughout the province.

Shop Operations

Shop Operations operates a network of repair shops across the province. These shops are responsible for the maintenance repair and overhaul of the department's fleet of mobile equipment as well as the custodial responsibility for parts and materials inventory at these locations. The group provided customer service functions at field locations by administering the fleet equipment transfer process, co-ordinated services and repairs in the private sector and provided "stores" services to users. In addition, practical training for apprentices was provided in heavy duty mechanic, welder, partsman and machinist trades.

In June the EMS Work Order and Inventory Control modules were initiated with relatively minor problems, considering the very substantial impact systemization had on our established procedures. At the end of December there was a further significant change in systems when Alberta Financial Information System (AFIS) was replaced by Departmental Financial System (DFS). There were no serious difficulties experienced during the immediate cut over period, some adjustments were required at the fiscal year end to state the financial information in a similar format to previous years.

At the annual Shop Supervisors' Conference in November, strategic planning concepts were introduced focusing on the Area Shop Supervisor's level. The concepts introduced will be used in coming years to further develop a balanced organization capable of meeting customer needs.

As a move toward increased financial responsibility, detailed budgets for the 1989/90 fiscal year were prepared at the shop level for all activities associated with the operation of a repair shop.

Materials and Support

Through a decentralized inventory operation, stock item supply is provided to the entire department. Materials supply supports construction and maintenance activities for highways, bridges and airports; parts provision supports fleet repair and maintenance and a Bulk Fuels Program is provided for fleet operations.

Full automation of stores transactions was implemented as part of the EMS resulting in on-line information, receipt and issue capability for all inventory items. The enhanced information availability is credited for maintaining the inventory dollar value at a constant level when commodity costs had risen significantly and line items increased due to longer supplier lead times.

Support Services provides centralized systems program support, budget, payroll and policy administration, accounts payable and records management for the branch. Major initiatives completed were the full implementation of the Equipment Management System (EMS) to all decentralized locations and the application of details Departmental Financial System (DFS) to budget administration for the Transportation Revolving Fund.

ALBERTA MOTOR TRANSPORT BOARD

G. Bellingham
Chairman

The *Alberta Motor Transport Board*, under the Chairmanship of Gordon Bellingham, continues to operate with six part time members, and receives all of its administrative support from the Motor Transport Services Division of the department.

The Motor Transport Board has continued to pursue the full implementation of the federal legislation for the regulatory reform of the extra-provincial trucking industry, and with the National Safety Code and Operating Authority Section has introduced revised procedures for the simplified processing of applications under the Motor Vehicle Transport Act, 1987 (Canada).

In June 1988, the Board's policies regarding Alberta's interpretation and implementation of the federal legislation came under attack from a Manitoba based carrier who had objected to the Board's granting of a number of broad authorities. The Board was challenged in the Alberta Court of Queen's Bench on 10 points relating to the Board's policies and methods of processing applications and respondent objections.

Subsequently the ruling was in favour of the Board on all 10 points brought before the Court and costs were awarded to the Board.

The result of the ruling by the Court of Queen's Bench told the motor carrier industry and the rest of the country, that the Alberta Motor Transport Board had correctly implemented the new federal law. This position was completely supported by the trucking industry in Alberta who agreed that in granting very broad operating authority certificates, the Alberta Board had properly interpreted the new federal reform legislation.

The Board continued to grant all carrier applications that met the fitness entry test and who had fully complied with the National Safety Code. These applications were granted "in the public interest," and attracted very few objections from the existing authorized industry. This has resulted in the Board holding a reduced number of public hearings for trucking applications.

However public hearings continue to be held under the "public need and convenience" test for extra-provincial charter bus and for scheduled bus applications.

The Board continues its work with other jurisdictions in attempting to reach the highest degree of uniformity across Canada. The Board's focus is to ensure that under the federal reform legislation all Alberta carriers are given the opportunity to compete equally with carriers from other jurisdictions in both Canada and the United States.

MOTOR TRANSPORT SERVICES DIVISION

C. Procuik
Assistant Deputy Minister

Engineering Services Branch 52
R. Houston
Director

Planning and Statistics Branch 55
L. Keown
Director

Support Services Branch 49
R. Clarke
Director

Transport Field Operations Branch 51
R. Pagnucco
Director

Transportation Safety and NSC Branch 54
R. Hogg
Director

Motor Transport Services is comprised of five branches:

- Support Services
- Transport Field Operations
- Engineering Services
- Transportation Safety
- Planning and Statistics.

Each branch offered a variety of programs and support over the past year.

The 1988/89 year was a challenging one for Motor Transport Services in the commitment to ensure a safe motoring environment while still supporting the social and economic needs of Alberta and Albertans.

Motor Transport Services played a significant role in the implementation of the National Safety Code (NSC) by initiating the public information campaign to advise the industry of the changes, along with a toll-free hotline to respond to the industries queries regarding the change. A total of 16 programs within the NSC were initiated the majority of which have been implemented within Alberta.

This year a central permitting office was established in Red Deer with a toll-free number to deal more efficiently with requests for permits.

A new computer revenue procedure program was also developed to improve all permit charges.

Many new and innovative undertakings have been implemented during the last year to make the Alberta Motor Transport industry competitive both from a technical and operational mode, provincially, nationally and internationally.

The challenges of 1988/89 were met and Motor Transport Services will continue to meet the new challenges of the future.

Financial Administration

Financial Administration provides effective administrative support to Motor Transport Services in the area of revenue and expenditure control, records management and procurement and inventory control.

During the 1988/89 fiscal year Financial Administration had a major change in revenue procedures. In October 1988 Motor Transport Services accessed Alberta Solicitor General's Motor Vehicles Division's financial system known as MOVES.

By accessing MOVES, Motor Transport Services became fully automated in producing permits and financial procedures. The time consuming manual entry of all charges was eliminated and the revenue area decreased from five people to three.

The total revenue generated for 1988/89 fiscal year was:

Permits	$ 6 161 030
Extra-Provincial Operating Authority	142 800
Miscellaneous Documents	13 790
Total Revenue	$ 6 317 620

National Safety Code (NSC) and Operating Authority Administration

In response to the regulatory reform program initiated by the Motor Vehicle Transport Act 1987, and subsequent revisions to the Motor Transport Act, the NSC and Operating Authority Section, previously Secretariat, continued to implement a number of operational changes affecting the regulatory program. These changes reduced the burden and simplified the process and requirements of a freight carrier wanting to secure an operating authority from the Motor Transport Board.

The mandate of the section was not only altered by the developments of the regulatory reform program, it was also enhanced considerably with the additional responsibility for the establishment of the administrative program to support the National Safety Code. Under this new program, this section assumed the responsibility of processing carrier applications and for maintaining all carrier records relating to the carriers initially satisfying the NSC requirements, and also ensuring ongoing compliance with the National Safety Code.

In conjunction with Information Services Branch, work was initiated to design an extensive National Safety Code computer system which, when complete, will provide automated information filing, processing and compliance monitoring capabilities.

The following charts provide an indication of the client application process during the period.

EXTRA-PROVINCIAL OPERATING AUTHORITIES PROCESSED 1988/89

	APPROVED	DECLINED	TABLED	WITHDRAWN	CANCELLED
New Applications					
Motor Carrier	430	–	–	2	–
Bus	9	2	2	–	–
Amendments					
Motor Carrier	472	-	–	1	–
Bus	8	–	–	–	–
Renewals *	362		–	–	–
Transfers					
Motor Carrier	–	–	–	–	–
Bus	2	–	–	–	–
Cancellations **					
Motor Carrier	344	–	–	–	–
Bus	1	–	–	–	–
Temporary Authorities					
Motor Carrier	228	8	–	–	–
Bus	6	–	–	–	–
Reinstatements					
Motor Carrier	31	–	–	–	–
Bus	3	–	–	–	–

* *Includes bus renewals*

** *Cancelled for non-payment of prorate fees, no longer needed, dormant authority.*

INTRA-PROVINCIAL OPERATING AUTHORITY CERTIFICATES PROCESSED (BUS) 1988/89 (INCLUDES RENEWALS)

	NUMBER
Class A Charter Service	44
Class B Charter Service	40
Class C Charter Service	39
Class D Charter Service	18
Intra Industrial Contract Certificates	21
Private Bus Certificates	1065
D Class Restricted Certificates	381
Route	19

INTRA-PROVINCIAL OPERATING AUTHORITY CERTIFICATES (TRUCK) PROCESSED 1988/89

	NUMBER
New General Merchandise Applications	2370
New Exempt Applications	114
Amendments	48
Reinstatements	49
Cancellations (General Merchandise)	1181
Cancellations (Exempt)	571
Renewals	2708

NATIONAL SAFETY CODE 1988/89

	NUMBER
Insurance Filings Completed	1274
Carrier Files Created	1301

OTHER PERMITS AND CERTIFICATES PROCESSED 1988/89

	NUMBER
Liveryman's Certificate	398
Drive Yourself Certificate	105
Bus Single Trip Permits	934
Bus Equipment Exemption Permits	123
Bus Temporary Authorities (Intra)	87

Communications and Training

The section is responsible for co-ordinating the division's programs and providing specialized training and human resource development programs.

Major communication efforts were undertaken in the past year to enhance the awareness of MTS with interest groups. The first seven of nine videos were developed and completed outlining departmental services for internal and external audiences.

This section was also active in responding to invitations from industry and public interest groups to participate in such display and trade shows as, Haztech '88, the Edmonton Auto Show, the Calgary Auto Show and Police Week at Parkland Mall in Red Deer, with support material depending on the focus of the trade show.

The "Alert" newsletter also plays an important part in ensuring communication is channelled both within and outside the division.

Communications and Training also plays a lead role in enhancing internal communication by co-ordinating "Team Building" and "Vision Sessions" for the management of MTS. Quality Circle groups were organized to identify and resolve corporate service issues.

The training function continues to be an integral part of the section in conducting and co-ordinating the specialized training required at all levels by ensuring the ongoing effective use of human resources within the division. In this role, this section developed orientation manuals for all new employees joining Motor Transport Services as well as manuals for supervisors and managers to assist them in this training process.

Standards, Maintenance and Liaison

Standards, Maintenance and Liaison is responsible for the provision of support services in the area of facilities construction and maintenance, weigh scale calibration, and general field equipment and supplies. It is also responsible for the liaison with counties, municipal districts and other local authorities, and for co-ordinating the MTS log haul program.

The liaison function provides a mechanism to arbitrate disputes in road damage complaints and misunderstandings of permitting procedures between industry and various government agencies, as well as providing a general liaison between the transport industry and the counties and municipal districts. This service extends to meetings with the Alberta Forest Products Association and lumber and pulp mills, to discuss problems and make recommendations for changes to the log haul regulation and policies that affect the transportation industry. During the reporting period, this section met with councillors and administrators in 44 of the 52 counties and municipal districts throughout the province to ensure an understanding of the operations of Motor Transport Services, and to achieve a consistent application of government regulations and policies.

The construction and maintenance functions include the responsibility for the maintenance and upgrading of the Vehicle Inspection Stations, portable trailer scales and hand held scales. It is also responsible for the calibration of the static weigh scales maintaining the high standards of accuracy required for federation approval. During the reporting period two new axle scales were installed at Rocky Mountain House and Red Deer in 1988/89 and one Lodec portable trailer scale was purchased. Plans were finalized for the construction of a new vehicle inspection station in Slave Lake to monitor the anticipated increase in log haul and other industrial activity in north central Alberta.

Transport Field Operations

Transport Field Operations (TFO) is the enforcement arm of Motor Transport Services Division. The purpose of the section is to ensure public vehicle compliance with those Provincial and/or Federal Statutes and Regulations affecting the movement of people and goods on Alberta Highways. Although operating under a philosophy of voluntary compliance, service and education, this section does practice selective enforcement and prosecution in an effort to protect the legal carrier and motoring public. This section educates, monitors and enforces by:

- establishment of strategically located Vehicle Inspection Stations (VIS)
- planning for portable scale pad sites throughout the province with one presently established at Rocky Mountain House
- establishment of mobile patrols operating out of the VIS
- on-road inspection of vehicles and documents
- facility audits and investigations
- maintaining compliance recording systems
- conducting seminars and demonstrations on on-highway related topics
- maintaining decentralized permit issuing offices
- providing assistance to Dangerous Goods Control, Alberta Public Safety Services; Alberta Environment and Revenue Administration, Alberta Treasury
- conducts safety inspections on commercial vehicles in accordance with Commercial Vehicle Safety Alliance Standards
- exchange of interprovincial records
- distribution of promotional and regulatory material.

During the 1988/89 fiscal year Transport Field Operations has firmly established itself as the fourth largest law enforcement agency in the Province of Alberta.

Major expansion during the 1988/89 fiscal year has allowed TFO to ensure consistency in enforcement efforts between mobile patrols and permanent vehicle inspection stations.

Audits, investigations and compliance reviews are conducted by investigative staff to ensure protection to Alberta highways and to provide a safe environment for all users through commitment to the National Safety Code. The National Safety Code is a Canadawide program to ensure maintenance, safety and driver standards are adhered to by all firms involved in highway, and that transportation.

TRANSPORT FIELD OPERATIONS

ACTIVITY STATISTICS

	Calgary	Lethbridge	Red Deer	St Paul	Vermilion	Edmonton	Edson	Grimshaw	Grande Prairie	Whitecourt	Totals
Vehicles Checked	26 830	29 162	6 654	4 806	6 571	18 147	4 294	3 116	7 869	6 025	113 474
Vehicles Weighed	160 243	98 616	11 200	20 325	45 892	106 214	20 634	12 065	30 038	48 638	553 865
Overloads	1 804	959	599	505	414	1 919	468	783	1 632	2 304	11 387
Other Offences	3 197	5 858	3 004	1 291	2 070	4 049	2 080	1 281	2 364	2 725	27 919
CVSA Inspections	717	1 278	867	839	572	1 247	735	436	584	659	7 934
Prosecutions	227	200	83	96	112	176	114	152	237	130	1 527
Investigations	129	117	113	44	64	243	78	35	101	20	944
NSC Compliance Reviews	406	103	203	–	–	476	–	–	119	–	1 307
HRS Mobile Patrol	3 560	3 108	4 342	3 219	4 028	4 707	2 230	3 514	5 079	1 590	35 377
HRS Scale Operations	13 507	14 935	2 256	3 663	3 538	11 583	2 788	2 614	5 278	4 431	64 593

Engineering Services Branch

Engineering Services is responsible for developing weight and dimension regulations, and policies and procedures which allow for the equitable balance between highway user needs and the physical capabilities of our roads and bridges, while considering the essentials of public safety.

In order to achieve its goal of "Maximum Use With Minimum Abuse" Engineering Services:

- maintained the road ban system to protect weakened road beds in the spring and provided recommendations to the counties and municipal districts on road ban requirements for their paved roads
- instituted a central permit office with toll-free lines to better serve industry. Over the eight months of operation of this new system and the four months under the old system, 71 657 permits were issued for oversize permits, accounting for $3 561 000 in revenue
- incorporated the recommendations of the Inter-Provincial Vehicle Weights and Dimensions Study on Alberta's primary highways with provision for permits for roads not covered under the agreement
- continued involvement with the Roads and Transportation Association of Canada (RTAC) in an effort to standardize equipment weights and dimension limits across Canada
- continued a testing program for testing specific transportation equipment where current standards do not apply.

The branch also provides technical advice to equipment manufacturers and carriers regarding regulations, equipment design and modifications which ensure regulatory compliance. Also a continual liaison with industry has been established to research new designs and to ensure present and future innovations are in the best interests of all.

Transportation Safety is the provincial government's traffic safety co-ordinating body. This branch has the responsibility to take positive, pro-active steps to reduce motor vehicle collisions and their attendant injuries and death.

During this fiscal year the branch developed and disseminated public information campaigns directed at many facets of traffic safety. The major initiative was the campaign to advise the commercial road transportation industry of the requirement of the National Safety Code. Along with the public information campaign, a toll-free National Safety Code hotline was established to respond to enquiries from the industry. Branch representatives conducted in excess of 30 public information forums across the province to advise industry representatives of the content of the National Safety Code and those requirements that industry would have to meet.

A comprehensive review of the Highway Traffic Act was commenced which will eventually culminate in the development of a completely new and up-to-date Act to regulate highway traffic in Alberta.

Safety Branch staff continued their close liaison with federal and other provincial departments and agencies and they also continued their involvement with professional international and national traffic safety organizations. Alberta personnel have taken a lead role in the Commercial Vehicle Safety Alliance and the Canadian Council of Motor Transport Administrators in the development of vehicle inspection and traffic safety programs.

The branch provided financial support to non-profit organizations such as the Canada Safety Council and the Alberta Safety Council, and branch staff also took lead roles in the activities of these two Councils.

Safety Education Programs

The mandate of Safety Education Programs is to reduce collisions and provide a safe motoring environment through the development and delivery of timely traffic safety education programs.

This section provides the most direct personal contact with the public on traffic safety issues. Fourteen presentation programs target every segment of society from children in "Pre-School Programs" to the senior citizen. Located throughout the province, this section's Safety Education Representatives conducted 3901 direct presentations to 171 527 Albertans during the 1988/89 fiscal year. This reflects a 44 per cent increase in the number of presentations and an 18 per cent increase in audiences over the 1987/88 fiscal year.

With an emphasis on instilling road safety concepts at an early age, two-thirds of the audiences are elementary age school children receiving programs such as School Bus Safety, Emergency School Bus Evacuation Drills, Bicycle and Pedestrian Safety. The Seat Belt Awareness Program utilizing the "Convincer" continues to be popular in both school and industry.

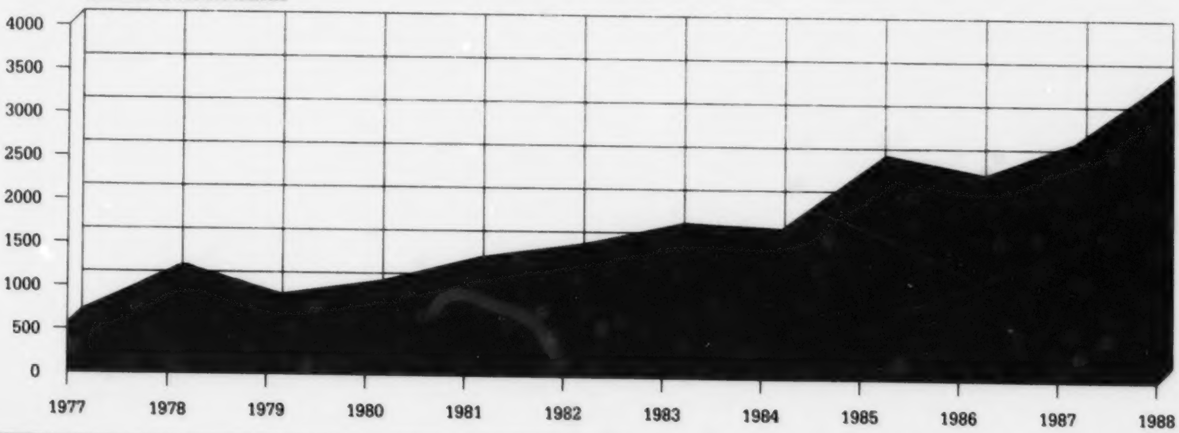
Although students in the school system made up the majority of audiences, there were 507 presentations delivered to adult groups consisting of industry, service groups, health units and associations.

While most of this section's activities involve direct audience presentations, the Safety Education Representatives were also available to man 146 display shifts in exhibitions, fairs, schools and shopping malls.

In order to have a better understanding of the circumstances surrounding a school bus crash, Safety Education Representatives conducted 202 interviews with school bus drivers who were involved in all types of school bus collisions.

Safety Education Representatives are listed in departmental newspaper ads and on brochures as resource persons to offer information on allowable and safe driving practices. In this regard, and including questions relating to other programs, 5896 incoming telephone calls were answered.

SAFETY EDUCATION PROGRAMS
SCHOOL LECTURES



Collision Investigations

Collision Investigations continued with its program of detailed collision investigations and review of motor vehicle reports to help identify and make recommendations to rectify highway collision-prone locations.

During the fiscal year 1988/1989, indepth studies relating to road, vehicle, and human factors were conducted on 97 selected severe motor collisions of which 66 were fatal. The following list provides examples of the types of collisions being studied and some of the factors involved:

- elderly drivers were involved in 31 collisions
- there were 30 fatal motorcycle collisions
- nine fatal collisions involved a train
- six fatal collisions involved a school bus
- twelve fatal primary highway collisions.

From the six fatal school bus crashes, plus 291 other school bus incidents, a comprehensive analysis of causes enabled countermeasures to be taken. This included presentations to school bus supervisors and drivers. In six presentations, some 250 school bus drivers, supervisors, school division and municipal authorities were provided with traffic safety related information derived from the investigations to improve school bus safety.

This fiscal year has seen further growth in the use of this section as a resource for collision and traffic safety related information by local governments, the transportation industry, operators and private citizens, with some 34 consulting files being completed.

This fiscal year saw the development of two further responsibilities. Collision Investigation staff were requested to develop, administer and instruct a basic Collision Investigation course for the Alberta Safety Council. Also the Collision Investigators attended provincial court for the first time to provide expert testimony in two separate cases.

Vehicle Inspections

In accordance with Motor Transport Services Policies and Procedures Manual, the Vehicle Inspection Program priorities remained unchanged during the 1988/89 fiscal year as follows:

School Bus Inspection Program

- school bus monitoring program
- school bus inspection station monitoring program
- school bus equipment exemption program.

Commercial Bus Inspection Program

- commercial bus monitoring program
- commercial bus inspection station monitoring program.

Written-Off Vehicle Inspection Program

- written-off vehicle inspection station monitoring program.

Commercial Truck/Trailer Monitoring Program

- extended length vehicle inspection program
- Commercial Vehicle Safety Alliance (CVSA) inspection program
- Alberta preventive maintenance program, including: the commercial vehicle maintenance standards as required under standard eleven of the National Safety Code, and the Bilateral Vehicle Inspection Agreement between Alberta and the Province of British Columbia
- log haul program.

In the field of program development, Vehicle Inspections, in conjunction with the Motor Vehicles Division of Alberta Solicitor General, has been involved in the development of the Air Brake Endorsement Program and in studying amendment requirements to the Written-Off Vehicle Inspection Program.

Other program development activity has been in the study of future exhaust emission controls and vehicle weight and dimension requirements, as well as future National Safety Code data entry requirements.

There is a policy requirement for 50 per cent of school buses registered in Alberta, to be monitored annually; 2850 were monitored, representing 57 per cent. (The Alberta school bus fleet is approximately 5000 units.) In addition, 275 commercial buses, 214 motor coaches, 2940 trucks, 4602 trailers and 2064 inspection stations were monitored. There were 134 crashed vehicles examined and 607 school buses monitored for equipment exemption purposes.

During this period, six Commercial Vehicle Safety Alliance (CVSA) inspector courses were held for the Transport Field Operations officers, producing approximately 90 qualified CVSA inspectors. Also the spring and fall CVSA conferences were attended by the Manager, Vehicle Inspections, with active participation in the formulation of vehicle inspection criteria as a member of the CVSA Vehicle Committee.

Staff development was ongoing, which included those training requirements as specified under succession planning.

Planning and Statistics

Planning and Statistics is responsible for the planning, research, business analysis, policy development and statistical operations functions of Motor Transport Services, which includes the Alberta Collision Information System (ACIS).

The collision reporting, analysis, and information resource system (ACIS) provides information required for development of traffic safety countermeasure programs as well as improvements to Alberta's primary highway network. During the 1988 reporting period, there were approximately 110 000 reportable traffic collisions, which is a 13 per cent increase from 1987. Despite this increase in collisions, there were fewer fatalities and injuries. Fatalities declined nine per cent, and injuries decreased by five per cent since 1987. In 1988, there were approximately 9202 collisions on the province's primary highways.

Planning and Statistics also provides in house consulting and program support services to the division. The following projects were completed during the reporting period:

- monitoring of the effects of Alberta's National Safety Code program, a safety program for commercial trucks and buses
- assessment of collision reporting practices across North America and identification of collision information required by users
- review of the literature on elderly drivers
- assessment of public concern on road safety issues
- assessment of economic benefits to the trucking industry from highway upgrading
- assessment of interjurisdictional use of vehicle inspection stations
- interjurisdictional comparison of Highway Traffic Act and Motor Transport Act fines
- development of a system for ongoing program review and evaluation
- assessment of the impact of Alberta's weight enforcement programs on pavement costs
- study of motorcycle collisions and engine size
- assessment of proposed changes in the administration of the Commodity Index
- analysis of alcohol related crashes in each area of the province
- preparation of reports as required to assist the RCMP in their manpower and resource planning
- participation in a variety of national and international committees and conferences.

The Field Services Unit of the branch collects first-hand information on the characteristics of traffic at specific locations throughout the province. In 1988/89 they conducted 415 speed studies, whereby specific locations on primary and secondary highways were monitored to evaluate existing speed limits. Of these 415 locations 139 were completed with regional participation. The unit also conducted vehicle and pedestrian movement studies at 232 locations throughout the province. These movements are studied to develop a comprehensive profile of the intersection concerned. Thirty locations were filmed or video taped to better illustrate the safety concerns and an additional 29 railroad crossings were surveyed for possible improvements. Photographs were taken at the crossings to review signing and site distances.

In addition to the above the branch responded to 747 ad hoc requests for information from 536 clients.

PLANNING AND DEVELOPMENT DIVISION

J. MacGregor
Assistant Deputy Minister

Information Systems Branch 63
D. McTavish
Director

Research and Development Branch 61
J. Konarzewski
Director

Strategic Planning 59
M. Duncan
Executive Director

Utilities Policy 60
L. Charach
Director

The Planning and Development Division provides leadership and co-ordination to the department in the development of transportation and utilities policies, programs and plans, and in the application of new technologies and information systems in departmental operations. The overall purposes of the division are to provide recommendations to the government and direction to the department to meet the challenges and opportunities of a changing environment in a manner that support government policy and departmental objectives.

The division was created with the departmental reorganization effective April 1, 1988 through the amalgamation of branches and functions from four previous divisions.

The division's mandate is accomplished through four branches:

- Strategic Planning Branch is responsible for strategic direction planning for the department, for the development and evaluation of transportation policies and programs, and for the long-range planning of an integrated multi-modal Alberta transportation system.
- Utilities Policy Branch is responsible for the development and evaluation of policies and programs affecting electric and gas utility development and consumer prices.
- Research and Development Branch is responsible for the strategic and annual planning and the management of applied research and technology transfer programs. These programs are aimed to produce technological solutions which optimize the use of departmental resources allocated to the development, maintenance and operation of the transportation physical plant (highways, airports) and equipment.
- Information Systems Branch is responsible for strategic and annual planning and the management of projects for the application of electronic data processing (EDP) systems and hardware in the departmental operations. These projects meet departmental information requirements and enhance the efficiency and effectiveness of departmental information processing and decision making.

Strategic Planning Branch

The Strategic Planning Branch continued to provide leadership and co-ordination for policy development, and strategic and transportation systems planning. Changes in the branch's organizational structure resulted in the transfer of Traffic Engineering to the Operational Planning Branch (Engineering and Operations Division) and a change in branch title, formerly Corporate Planning Services. The branch now comprises three sections, Transportation Policy, Transportation System Planning and Special Planning Projects.

Transportation Policy

Transportation Policy is responsible for identifying trends and issues that impact the department's strategic plans, policies, and programs, and for co-ordinating overall strategic planning and transportation policy development.

The department's strategic planning process was enhanced during the year through the use of focus groups of departmental staff to help identify emerging issues and options. In part, as a result of this input, the department's goals were reviewed by Executive Committee and the format and content of the Strategic Directions document, which communicates departmental objectives, was revised.

The section co-ordinated the development and evaluation of a wide range of policies and programs and represented the branch on intergovernmental and interdepartmental review committees. The group took a lead role in:

- developing policy for access to recreation and tourism attractions in support of the Government of Alberta's initiative on tourism
- negotiating funding for transportation projects in northern Alberta under the Canada-Alberta Northern Development Subsidiary Agreement
- co-ordinating activities with the Federal Government under the Memorandum of Understanding for Transportation.

Evaluation initiatives during this year included the preparation of a Program Evaluation Guide and workshops for program managers to ensure consistency in the department's program review approach. Monitoring and evaluation frameworks for programs such as the Small Power Research and Development Program were also developed. The Alberta Cycling Information Map, the first of its kind in Canada, was another successful accomplishment.

Transportation Systems Planning

Transportation Systems Planning conducted a large number of planning studies and developed recommendations to respond to municipal and other requests for changes to the primary and secondary highway systems and to the classification of roads. Transportation planning studies were also conducted in co-operation with municipalities. Progress was made on enhancing the department's planning information base and expertise. The Edmonton Regional Traffic Forecasting Model and enhancements to the Transportation Geographic Information Systems planning database are examples.

The section also continued to co-ordinate departmental input into government planning processes such as Environmental Impact Assessments, Development and Reclamation Reviews, and the Integrated Resource Planning Process. Ongoing planning support and analysis was provided to departmental initiatives such as the National Highway Policy Review, the development of the secondary highways paving program, and projects co-ordinated by Special Planning Projects.

Special Planning Projects

This newly created section is responsible for co-ordinating the formulation of proposals on major transportation projects for program and funding decisions and the development of a long range plan for Alberta's integrated transportation system. Projects completed during the year included:

- an assessment of the implications on Highway 63 of the potential OSLO development which resulted in government approval for widening
- development of a proposal to twin the Export Highway (Highways 2,3, and 4) connecting to the U.S. Border which was also endorsed by government as a long-range objective.

In addition a departmental issues management process was developed and approved by Executive Committee and work progressed on developing an appropriate departmental approach to long range transportation systems planning.

The Utilities Policy Branch provides analytical support and co-ordination for the development and evaluation of policies related to electric and gas utilities and for the department's utility programs.

During the year the branch managed and participated in a number of activities including:

- development of policy options and regulatory amendments for the Small Power Research and Development Program. Consultant studies were conducted on electricity generation with biomass and on the use of supplementary fossil fuels in biomass plants. Results were reviewed with small power producers, utilities and other interest groups and policies and regulatory amendments developed for government consideration
- development of policy options and preparation of regulatory amendments to the Alberta Electric Energy Marketing Act. During the year amendments were approved to permit Public Utilities Board hearings on utility forecasts. The shielding program scheduled to terminate in mid-1988 was also extended
- assessment of proposals for pilot projects under the Small Power Program and proposals for other financial assistance
- assessment of proposals from various interest groups on government policies and programs affecting electricity generation, access to the Alberta Interconnected System and rate equalization through the Alberta Electric Energy Marketing Agency
- evaluation of the implications of federal policy and deregulatory thrusts and of the Free Trade Agreement on Canadian exports of electricity and on Alberta's utility policies
- ongoing monitoring and analysis of Energy Resources Conservation Board and Public Utilities Board decisions and regulatory decisions in other jurisdictions to provide briefing and identify trends and issues for the department and government
- representation on a joint Alberta and British Columbia committee assessing power requirements for transboundary rivers
- enhancement of computerized databases for policy analysis covering both historical utilities trends and rate forecasting models
- ongoing participation in an Energy Modeling Forum on North American electricity markets and trends
- representation on the Electric Utility Planning Council's Regulatory and Government Liaison Committee
- representation on an Advisory Committee to a study of electricity planning issues undertaken by the Canadian Energy Research Institute
- participation in and presentations to utility-related forums such as the Canadian Wind Energy Conference.

The roles of the branch are to:

- develop and plan applied research programs which meet departmental needs and enhance the development, maintenance and operation of the transportation physical plant (highways, roads, bridges and airports) and departmental equipment
- co-ordinate all departmental research activities, avoiding duplication of effort, and ensuring that projects are designed and conducted according to a scientific approach and that results are appropriately documented and disseminated
- pursue opportunities for and undertake co-operative research with other jurisdictions and agencies
- transfer beneficial new technologies into and across the department
- undertake certain research projects directly.

During the year the departmental Research Advisory Committee was re-established with representation from across the department. With the committee's input, a five year research and development plan was prepared which identifies priorities and will guide the allocation of funds to projects in the upcoming years.

Progress in 1988/89 in each of the department's six research programs is discussed below.

Canadian Strategic Highway Research Program (C-SHRP)

C-SHRP is a seven year, $6 million program jointly funded by all provincial governments and the federal government, aimed at maximizing the benefits to Canada of the United States $150 million Strategic Highway Research Program (SHRP).

C-SHRP consists of four sub programs:

- monitoring the SHRP program in the United States
- technology transfer of SHRP and C-SHRP findings to Canada
- a co-operative Integral Program with SHRP
- a Complementary Program for uniquely Canadian problems.

The program completed its second year and is progressing satisfactorily in all sub programs. As well as co-ordinating Alberta activities the branch provided representation to the Executive and the Technical Steering Committees. The department was also represented on the Asphalt, Long Term Pavement Performance, and Structures Advisory Committees and provided the first visiting researcher to the SHRP program in Washington, who completed a one year term.

Under the Integral Program five pavement test sections throughout Alberta were selected and confirmed by SHRP.

Several research projects were initiated under the complementary program:

- pavement response studies
- bituminous surface treatments
- corrective measures for surface defects in flexible pavements
- removal of hazards due to ravelling of granular shoulder materials
- quantification of the service life of existing Canadian methods of rehabilitating concrete bridges.

Alberta Research Council Cooperative Research Program

This program jointly funded by the department and Alberta Research Council focuses on specific problems related to pavements, bridges and their associated environments. Research in the following areas was undertaken during the year:

- pavement management systems
- pavement design and evaluation
- geotechnical and materials evaluation
- effects of axle loads and loading configurations on pavements
- paving of aggregate roads
- development of instrumentation for continuous real time monitoring of traffic loads on pavements
- investigation of stopping sight distance for highway geometric design
- river bed scour
- river bank protection
- ice forces on bridge piers
- data collection to produce regionalized flood frequency curves.

Council on Highway and Transportation Research and Development (CHTRD) Program

This program conducted through the Roads and Transportation Association of Canada (RTAC) is jointly funded by provincial governments, the federal government and private industry. Activities supported during the year consisted of:

- technical information program on surface transportation research in progress in Canada
- salt use management for water resource protection
- fare collection systems and equipment
- two-lane rural highway capacity and level of service (phase III)
- economic impacts of road investment
- development of design and operational guidelines for the 'B' convertor dolly
- future directions for transportation planning models
- urban road geometric design manual
- transit in the subdivision design and approval process
- the effect of vehicle length on the passing manoeuvre on two-lane, two-way highways in Canada
- transportation infrastructure on permafrost
- second international symposium on heavy vehicle weights and dimensions (Kelowna II)
- technology transfer in research institutions.

University Cooperative Research Program

Under this program the University of Alberta and the University of Calgary conduct research for the department through post-graduate theses or direct contracts. The following research was conducted:

- influence of asphalt cement properties on the high temperature performance of pavements in Alberta
- rehabilitation of full depth asphalt concrete pavements in Alberta
- Devon geogrid test fill research.

Departmental Research Program

Through this program the Research and Development Branch undertakes certain high priority projects using its own resources, those in other departmental branches, region and districts, or private sector consultants.

During this year the branch completed thirteen ongoing projects and published twelve research reports. Fifteen new projects were undertaken as follows:

Roadway Engineering and Equipment Research

- coverall visibility study
- sander and truck conspicuity
- optical disk information storage
- bridge rail delineation
- inductance loop vehicle identification
- weigh-in-motion/automated vehicle identification demonstration.

Materials and Operations Research

- evaluation of untreated cracked asphaltic concrete pavement surfaces
- polymer modified asphalt crack sealant evaluations
- methods for finding bridge deck membrane holidays
- investigation into salt contamination of land outside the highway right-of-way
- test of erosion control blankets
- use of lignosulphonates for dust abatement
- 1988 asphalt concrete pavement cracksealing review
- corrugated plastic pipe installation evaluation
- investigation of alternate salt de-icers.

Technology Transfer Program

The branch was given a mandate by Executive Committee to develop a technology transfer program for the department. The objectives of the program were to ensure the transfer of beneficial technologies across the department and the capture of emerging and proven technologies from the external environment and their transfer to the department. During the year a conceptual frame work was approved and work continued on the mechanisms and communications networks necessary for a successful program. Two initiatives were also launched:

- publication of "Transearch" - a quarterly magazine to update departmental staff and other agencies on research activities and to disseminate research results
- commencement of projects to apply expert system technology to the department.

Information Systems Branch

The roles of the branch are to:

- prepare strategic and annual plans for the application of electronic data processing (EDP) systems and hardware in the department which meet client branch needs and departmental goals and objectives
- develop, maintain and support EDP systems, including the management of project teams and private sector consultants retained for these purposes
- manage hardware acquisitions and installations
- develop information systems standards for application throughout the department
- provide data entry and word processing services.

Highlights of activities during 1988/89 include:

Strategic Information Systems Plan

The plan was finalized, approved and distributed. It serves as a long term blueprint for the development and implementation of electronic data processing systems and technologies in head office, the regions and districts. The objectives of the plan are to enhance the sharing of data and integration of systems departmentwide, and to improve the effectiveness and efficiency of departmental resources allocated to EDP.

Work also commenced on preparing a strategic information systems plan for the utilities' components of the department. When completed this work will be integrated into the overall plan for the department.

Departmental Information Systems Committee

This committee was created during the year with representation from all divisions. Its overall purpose is to recommend policies, strategies and annual plans for EDP systems and technologies. The committee's input and direction are helping to ensure that resources in the Information Systems Branch and client branches are employed in an optimal manner in support of departmental goals and objectives.

Other Organizational Changes

A Data Resource Management group was established in the branch to assist in the management of corporate data and to support the goal of sharing data by means of integrated systems. Proposals for policies and the creation of a Data Resource Management Committee were developed for consideration by the Departmental Information Systems Committee.

Major Systems Development Projects

- Equipment Management System - This is an integrated financial and operational reporting system to support fleet management and shop operations. Development and installation was completed and the system was integrated into the operations of the Equipment Supply and Services Branch. Payback and benefits are being realized.
- Financial Reporting and Control System - This system provides a standard means of collecting, processing and reporting job cost information required by managers to monitor and control budgets. Modules completed in previous years were modified to work with the Departmental Financial System (DFS), the new governmentwide financial system replacing the Alberta Financial Information System (AFIS). The remaining modules for the posting of third party costs to the job cost ledger and the provision of minimal job cost reporting data, were completed and implemented. Work also commenced on the definition of final components of the system.
- Gas Alberta Retail Billing System - This system enhances the efficiency and quality of the retail billing service provided to rural natural gas distributors. Development of computer software and acquisition of the required stand-alone computer hardware was completed. Full implementation is scheduled for 1989/90.
- Permit Automation System - This system was fully implemented during the year. It supports and automates the issuing of overload and over-dimensional permits to motor carriers operating in and through Alberta.
- National Safety Code System - This system supports Alberta's regulatory and reporting requirements under national legislation which deregulates the commercial motor carrier industry and establishes new national standards (i.e., "fit, willing and able") for extra-provincial motor carriers. Benefits include savings in staff time, long distance telephone charges and mail costs, to support the exchange of carrier and professional driver information between jurisdictions and agencies.

The first phase of the Inter-Provincial Record Exchange System was completed and implemented by the federal, provincial and territorial governments. It allows jurisdictions to share their motor vehicle and vehicle operator databases. The second phase will incorporate national safety code information from the various jurisdictions as well as additional vehicle data. The first phase was funded by the department but developed by Alberta Solicitor General using its database; development of the second phase will be lead by the branch.

Design and development also commenced during the year on the Provincial System to provide national safety code information.

- Construction Program Management System - This will be a major on-line database system containing construction program and projects data for head office and all regions. It replaces several smaller systems. Benefits result from departmentwide integration and sharing of program and project data and from reduced EDP support and computer costs. Development commenced during the year and the first release, scheduled for implementation in 1989/90, will provide information on road construction projects from the planning through to the tendering stage. Plans were also prepared for the second release which will provide right-of-way tracking and information on aggregates.
- Design Earthwork System - Several enhancements were made so that data from the design process could be automatically transferred to drafting files, thereby increasing the productivity of drafting staff. Fifteen district offices were also equipped with hardware and software to support decentralized design in a manner that is fully compatible with the head office interactive graphics system.
- Traffic Information System - This system will replace six unintegrated systems and provide a centralized resource to store and manage data for planning, statistical reporting and engineering purposes. Development of the first release, which provides traffic turning movement data, began during the year.
- Bridge Inspection and Maintenance System - This system maintains information on a large number of bridge structures throughout the province. The second release was implemented which includes additional checks on data and produces inspection forms showing data collected at most recent inspection.
- Soils Classification System - This system was enhanced so that soil sample laboratory results could be transferred to a microcomputer based system which maintains soils information collected during materials engineering studies.

Microcomputers

Approximately 100 microcomputer systems were acquired in 1988/89 for use in engineering, technical and administrative functions throughout the department. Typical applications include spreadsheet, database, word processing and small technical and engineering systems. Stand-alone graphics systems were also installed to support decentralized roadway design in region and district offices.

One local area network of microcomputers was implemented and plans were begun for similar networks in headquarters, regional and district offices. These networks support sharing of hardware, software, data and documents.

Regional Data Communications Network

The department continued to participate in an Alberta Public Works, Supply and Services project to share the data communication network facilities in the province. This project begun in early 1988 and expected to be completed in 1990 will reduce network costs and increase the performance levels of provincial networks.

Operations

The data entry staff provided a total of 3926 hours of service and approximately 53 million keystrokes to users in the department. The data entry system hardware was updated to allow for more advanced formatting of data and customization of keyed documents.

Interactive graphics facilities produced 16 000 drawings of maps and plans. Of this total 9600 were plotted on the high quality pen plotters and the remainder were produced on the electrostatic plotter. The interactive graphics system was upgraded with the addition of a tape cartridge system to enhance the productivity of the staff involved in creating electronic backup copies of maps and plans.

The staff also maintained approximately 1540 user sign-on keys which are used to access the Alberta Public Works, Supply and Services computing centers.

Plans were also prepared to decentralize word processing functions and staff to major user branches, effective 1989/90.

Office Automation

The first phase of an office automation study and plan were completed. As a result an Action Request System was developed for the Senior Executive. The use of electronic mail was also expanded and 125 department staff members trained in the Professional Office System (PROFS).

The NBI word processing system was upgraded to reflect the reorganization of the Executive Offices and the replacement of obsolete equipment. Communication facilities were also provided for microcomputers in several branches to allow them to access the NBI system.

The Wang word processing system used by the Utilities' branches of the department was moved from the Westcor Building to the Twin Atria along with the relocation of the staff.

SUPPORT PROGRAMS DIVISION

D. Shillabeer
Assistant Deputy Minister

Gas Utilities 67
T. Brown
Executive Director

Municipal Services 73
M. Znak
Director

Urban Transportation 75
G. Halls
Executive Director

Utility Services 77
W. Brown
Executive Director

In April 1988, the *Support Programs Division* was formed which combined all of Alberta Transportation and Utilities' financial assistance programs and related technical, advisory and regulatory services into one area of responsibility. This has enabled the department to ease the administration of many of the programs, and recipients of the department's programs are able to contact one branch or section to assist them in addressing their needs. The division consists of four major groups encompassing many activities.

- Urban Transportation Branch - Responsible for the administration of the Urban Transportation Program which provides financial assistance to urban communities to assist them in meeting their priority transportation needs.
- Gas Utilities Branch - Responsible for the management, co-ordination, and administration of all aspects of the department's involvement in the gas utility industry, including technical, regulatory, financial, business, and natural gas procurement functions.
- Municipal Services Branch - Responsible for the administration of the department's water and wastewater programs to all municipalities (with the exception of cities over 100 000) and the department's roadway programs to towns, villages, summer villages, counties, municipal districts, and special areas. The branch also administers other related municipal programs, such as the Utilities Officer Program and the Public Transportation Operating Assistance Program.
- Utility Services - Responsible for the administration of the department's grant and loan programs to individuals in support of farm water systems, rural electrification, heating fuel rebates to farmers and seniors, and small power research and development.

Major highlights during 1988/89 included the announcements of the new Alberta Cities Transportation Partnership on October 1, 1988 and the new Streets Improvement Program on February 13, 1989. These new roadway programs to the urban and rural centres within the province became effective April 1, 1989 and are enhancements to the previous Urban Transportation Program and the Streets Assistance Program which ended March 31, 1989.

Also on October 1, 1988, the Small Power Research and Development Program commenced with the passing of the Small Power Research and Development Act. The program will enable small power producers to contribute to the province's electrical system and enable government to evaluate the contribution that small power can make in the long term.

Gas Utilities Branch

The Gas Utilities Branch was created during the 1988/89 fiscal year through the amalgamation of the former Gas Distribution and Gas Alberta branches. Under this amalgamated structure, the branch is responsible for the management, co-ordination and administration of all aspects of the department's involvement in the gas utility industry.

In accordance with this mandate, the branch delivers a variety of technical, regulatory, financial and business services to rural gas distributors and to rural Albertans. These functions and services are delivered through four sections:

Gas Distribution

The functions of the section encompass the following areas:

- review and approval of construction projects
- determining grant eligibility for capital projects
- inspection of construction and operations in rural gas utilities
- gas supply installations and wholesale gas measurement accuracy.

The 1988/89 period featured the continuing trend of smaller construction projects as the initial construction phase of the Rural Gas Program matures. Approximately 800 construction approvals were processed during the period covering the construction, replacement and upgrading of pipelines and plant in the program.

During 1988/89, this section stepped up efforts to establish proper gas balancing programs for the distributors to help identify and minimize gas losses. These losses were affecting the economic viability of a number of rural gas co-ops.

A review of construction, operations and maintenance practices in the program was completed. The results of this review concluded that major improvements in the area of safety have been realized in the operation of a rural gas distribution system.

Technical Services

With the aid of electronic data processing systems, the section provides a variety of technical services to rural gas distributors and to other branches within the Support Programs Division, including:

- franchise administration
- administration and development of plant location records for gas utility operating purposes
- administration of pipeline operating licenses
- development of technical standards
- administration of mapping systems for low pressure gas pipeline data as a public information service
- administration of water pipeline mapping systems for rural water co-ops
- drafting and graphic services for the Support Programs Division.

During 1988/89, the section continued with a number of long term automation projects using computer-assisted drafting to create mapping and data systems which will be much more efficient, effective and responsive to changes. Included in the automation program is a two year project scheduled to be completed in 1989/90 to recreate franchise plans and overhaul franchise area approvals into a more streamlined and accurate format.

Business Services

The section fulfills the following services and administrative functions:

- business advisory services
- capital cost reviews and administration of capital grants
- utility rights-of-way and lien note service and administration
- compilation of program statistics.

The business analysts provide a financial and business management service to rural gas distributors and provide information and advice to the general public on matters relating to natural gas utilities. The analysts continued to stress the need for sound financial planning and control especially since distributors are responsible for funding an increasing portion of their construction programs. The section manager serves as Director of Natural Gas Co-operatives and provides advice on legislative and regulatory matters affecting gas co-operatives.

Capital cost reviews are performed by the business analysts to identify those costs eligible for grant support. Grants offset a portion of system construction costs and are processed by the section. During the year 233 grant payments were made totalling $12 187 542.

During the year 4580 utility rights-of-way, easements and consent of occupant forms were prepared for member-owned gas co-ops and counties. As landowner consent is required for lands to be crossed by pipelines, all construction submissions were checked to ensure the required rights-of-way were in place prior to approvals being issued.

In addition, a total of 382 loans, amounting to $667 450 and supported by lien notes, were released under government guarantee through provisions of the Rural Utilities Act.

Collection and compilation of statistics of costs, installations and grants continued throughout the year. Significant statistics respecting the Rural Gas Program for the current year and on a cumulative basis from commencement of the program in 1973 are presented on page 69.

Gas Alberta

Gas Alberta acts as "gas broker" under the Rural Gas Act and is responsible for the economical and efficient supply of natural gas to rural gas distributors throughout Alberta. Through this brokerage service, rural gas co-operatives and other rural distributors benefit from uniformly-priced and secure gas supplies. Gas purchases and deliveries are financed through the Gas Alberta Operating Fund and distributors are assessed a wholesale gas rate for their gas supplies.

The gas brokerage operation encompasses the management of gas purchases and sales including supply and pricing strategies, the administration of contracts and financial control and accounting for the Gas Alberta Operating Fund.

Gas Alberta also offers rural distributors an optional retail billing service. Centralized billing allows these distributors and their customers to benefit from economies of scale as well as expertise in gas measurement and billing. Distributors who participate in the billing program are assessed a charge for this service.

Highlights of the 1988/89 year included:

- the management of natural gas purchases and sales to rural gas distributors totalling 15 million gigajoules (GJ) with a value of about $27 million, including delivery costs
- an approximate 10 per cent increase in the volume of gas sold. Colder temperatures resulted in increased heating load demands for natural gas
- completion of the development of a new computerized retail billing system which will enhance the economy and efficiency of this service for rural distributors
- administrative costs of the gas brokerage and billing service are now being recovered through the wholesale gas and retail billing rates.

RURAL GAS PROGRAM STATISTICS

Natural Gas Service Installations by Rural Gas Distributors

	Cumulative to March 31, 1988	1988/89	Cumulative to March 31, 1989
Rural	92 705	2 206	94 911
Urban	18 032	810	18 842
Commercial	6 419	302	6 721
Irrigation	5 034	77	5 111
Grain Dryers	1 211	45	1 256
	123 401	3 440	126 841

Grants Issued Under the Rural Gas Program

Cumulative to March 31, 1988	1988/89	Cumulative to March 31, 1989
$ 341 407 762	$ 12 187 542	$ 353 595 304

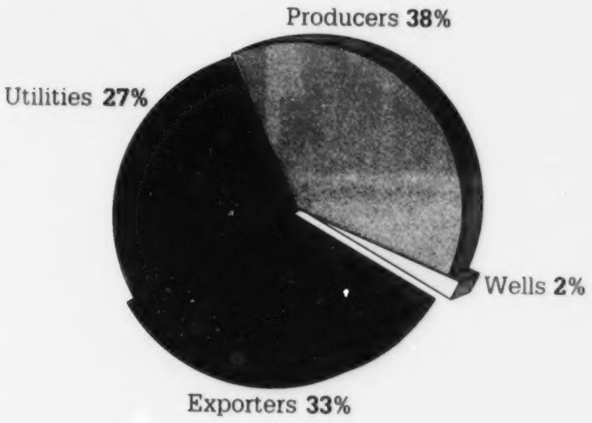
Kilometres of Pipeline Installed in Rural Natural Gas Distributor Systems

	Cumulative to March 31, 1988	1988/89	Cumulative to March 31, 1989
Polyethylene	83 512	1 105	84 617
Aluminum	5 495	73	5 568
Steel	2 226	–	2 226
	91 233	1 178	92 411

GAS ALBERTA STATISTICS

	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89
Gas Brokerage Service						
Rural Gas Distributors Served	86	87	90	90	91	88
Gas Delivery or Sales Points	643	666	685	693	698	691
Gas Suppliers	33	35	35	37	43	47
Gas Volume Sold (Millions of Gigajoules)	14.2	16.1	17.2	15.0	13.9	15.4
Retail Billing Service						
Rural Gas Distributors on the Service	52	52	52	52	55	55
Customers Served	33 300	34 926	34 446	34 570	35 843	37 105

GAS ALBERTA OPERATING FUND

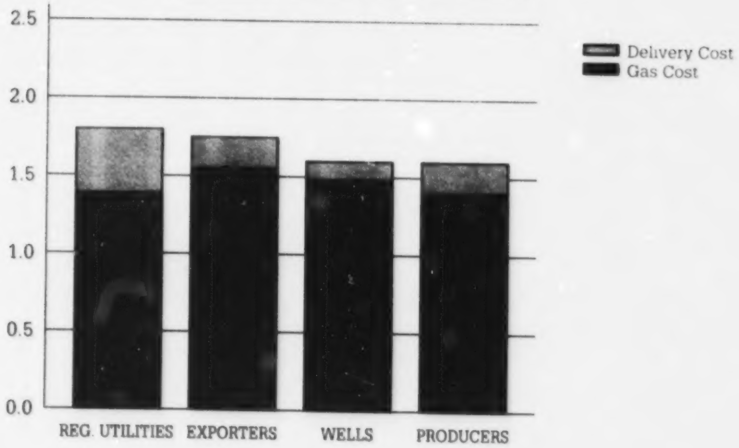


GAS ALBERTA OPERATING FUND

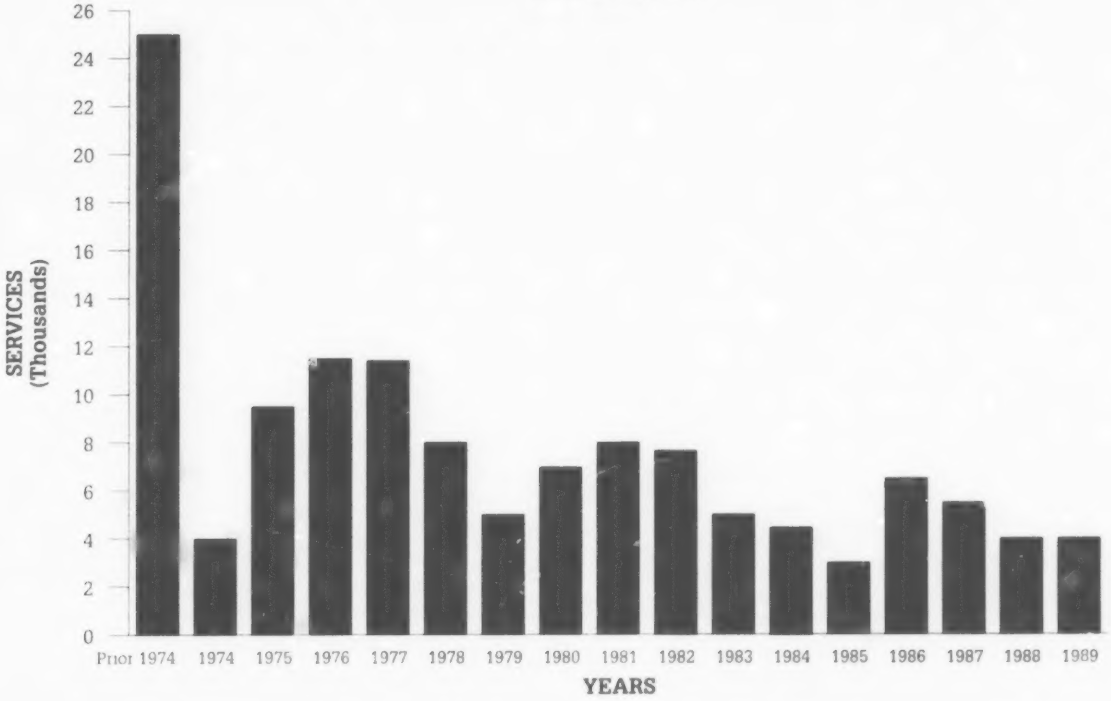
Total Gas Purchases in 1988/89

Suppliers		Thousand of GJ
Reg. Utilities:		4 199.2
N.U.L.	2 543.1	
C.W.N.G.	1 630.5	
I.C.G.	25.6	
Exporters:		4 981.8
Trans-Canada	2 419.5	
Pan-Alberta	1 061.2	
A. & S.	365.9	
Westcoast	164.8	
Inter-City	420.6	
Consolidated	122.0	
Enron	281.4	
Unigas	146.4	
Wells:		302.2
Producers:		5 901.8
		15 385.0

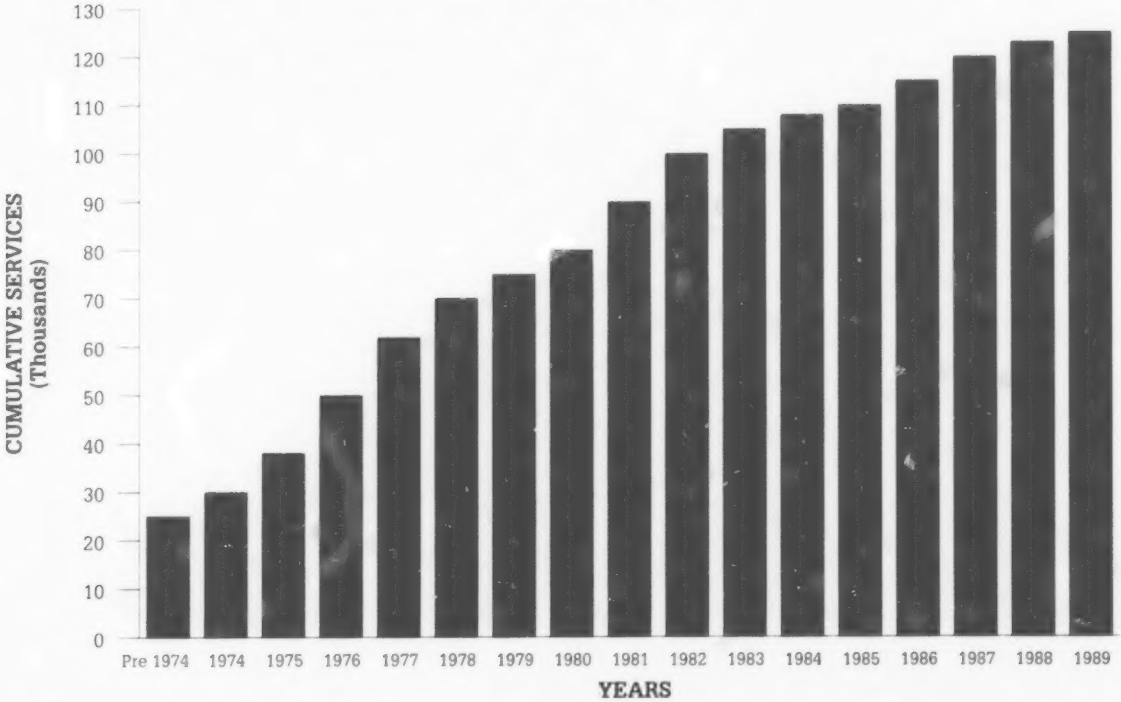
Unit Cost Analysis of Gas Supplies in 1988/89



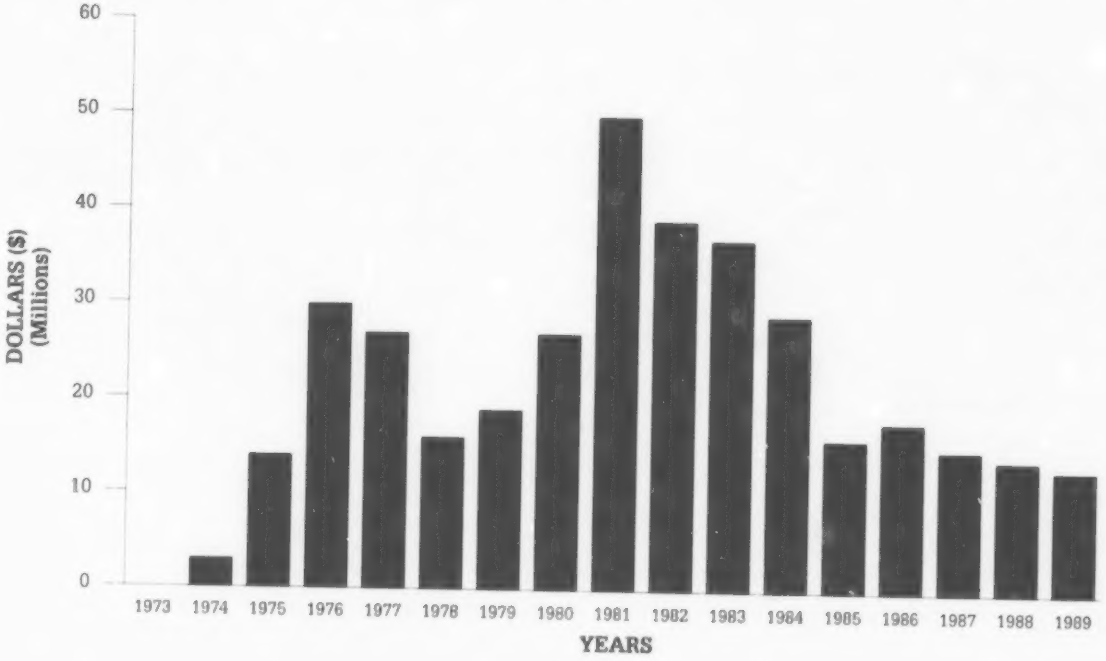
YEAR BY YEAR RURAL NATURAL GAS SERVICES UNDER THE RURAL GAS PROGRAM to March 31, 1989



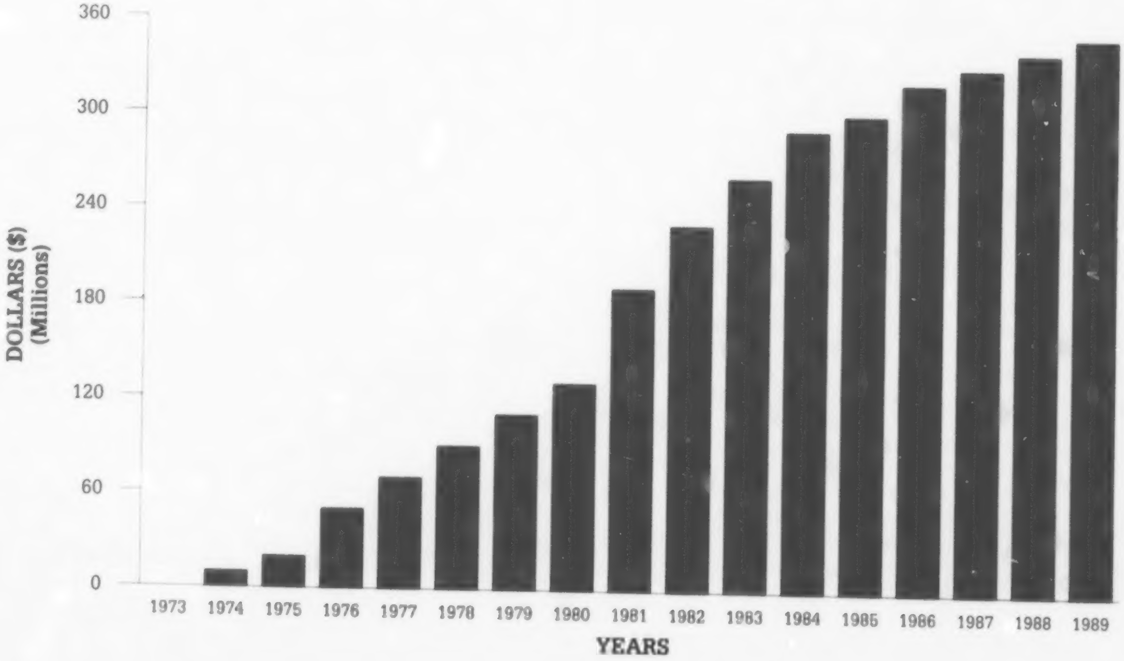
CUMULATIVE RURAL NATURAL GAS SERVICES UNDER THE RURAL GAS PROGRAM to March 31, 1989



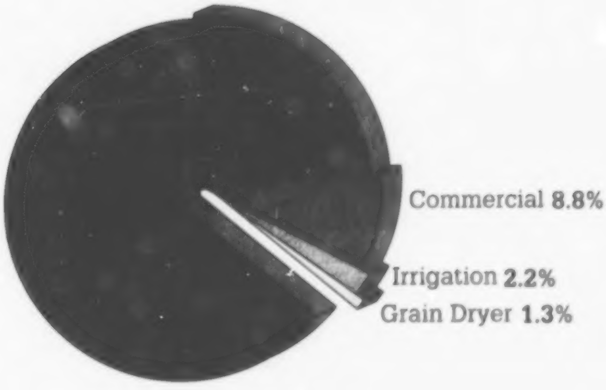
YEARLY GRANT PAYMENTS ISSUED UNDER THE RURAL GAS PROGRAM to March 31, 1989



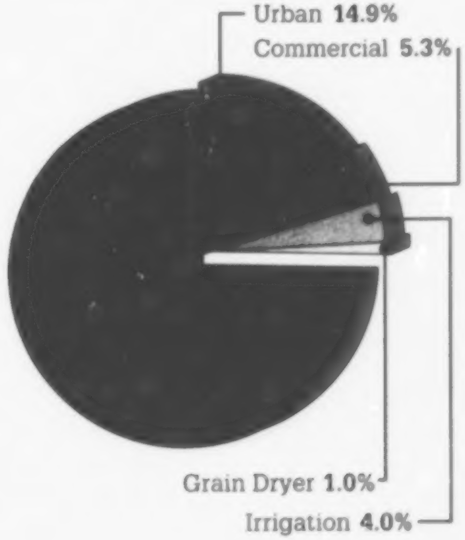
CUMULATIVE GRANT PAYMENTS ISSUED UNDER THE RURAL GAS PROGRAM to March 31, 1989



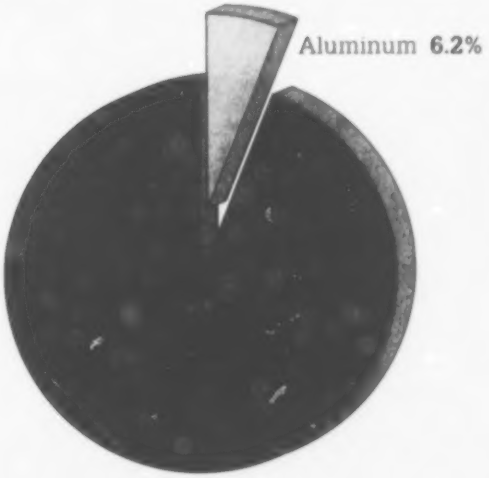
RURAL NATURAL GAS SERVICES BY TYPE FOR THE 1988/89 FISCAL YEAR



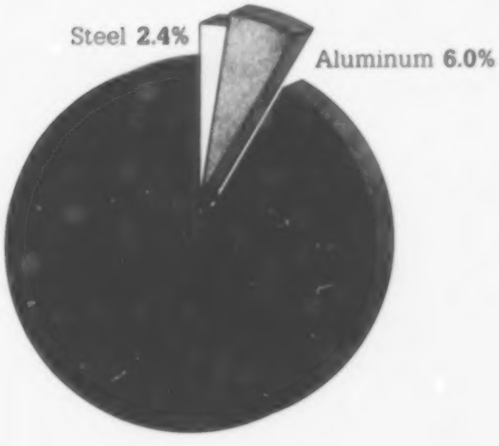
RURAL NATURAL GAS SERVICES BY TYPE CUMULATIVE TO MARCH 31, 1989



PIPELINE (KM) INSTALLED IN RURAL GAS SYSTEMS IN 1988/89



PIPELINE (KM) INSTALLED IN RURAL GAS SYSTEMS TO MARCH 31, 1989



Municipal Services Branch

On April 1, 1988, as part of the total departmental reorganization, the Municipal Services Branch was formed by the integration of the previous Municipal Utilities Branch with the Municipal Services Section of the Construction Programming Branch. With the combination of these two groups, a myriad of programs to municipalities were combined into one administrative area. This branch delivers a variety of technical, financial and advisory services through the following three sections:

Program Operations

This group of engineering and technical staff undertake the following key activities:

- technically evaluate all projects for which funding has been requested for need and cost-effectiveness, and recommends eligible projects for funding
- assist in identifying the future needs of municipalities
- act as project managers for regional systems under construction
- provide ongoing liaison with all municipalities, and the department's region and district staff in the administration of the programs.

Program Development

This section provides key planning and development needs, such as:

- ongoing program evaluation to ensure programs are meeting the needs of the municipalities
- long term planning for program needs and budget preparation.

A major highlight for this group in 1988/89 was development of the new Streets Improvement Program. This program was officially announced February 13, 1989 (effective April 1, 1989) to assist towns, villages, and summer villages with the continuing development of safe and efficient transportation systems.

Program Administration

This section plays an active role in the daily operation and administration of the programs. Activities include:

- processing of all contracts and grant payments
- record keeping and financial analysis of program budgets
- provide information and guidance to municipal administrations regarding management of cash flow, accounting procedures, and auditing requirements.

During the reporting period staff from the Program Operations and Program Development Sections participated actively in municipal and technical conferences. Attendance at the Alberta Urban Municipalities Association Conference, Alberta Association of Municipal Districts and Counties Conferences, Improvement Districts Association of Alberta Conference, and the Western Canada Water and Wastewater Association Conference, provided staff the opportunity to obtain updated information and to meet with municipal officials to discuss their needs with respect to the department programs.

The following provides details on the 10 programs administered by the Municipal Services Branch:

- **Alberta Municipal Water Supply and Sewage Treatment Grant Program**
  - provides up to 75 per cent assistance to municipalities in the construction of municipal water supply and wastewater treatment works
  - during 1988/89, 148 projects were approved in 129 municipalities totalling some $60 million in project costs and approximately $34 million in grants
  - grant funding was also provided in some cases for preliminary engineering studies to assist municipalities in evaluating their needs prior to undertaking any major water and sewage upgrading activities.
- **Agricultural Processing Industries Grant Program**
  - provides funding to assist municipalities with the development or expansion of their water and wastewater facilities to accommodate agricultural processing industries
  - during 1988/89, two new projects were approved with total project costs of $0.5 million and grants totalling approximately $0.4 million.
- **Regional Utilities Program**
  - under this program, the department undertakes, or provides financial and technical support for, the construction of multi-municipal water and/or wastewater treatment facilities. Subsequent operation and maintenance of these facilities is the responsibility of the regional authority
  - approximately $1 million was expended for construction, engineering and land costs, as well as approximately $3 million in grants
  - major highlights during 1988/89 include:
    - the Henry Kroeger Water Services Commission project was completed in 1988 and was placed into operation. The water supply line provides a secure water supply to municipalities in the Oyen/Youngstown/Hanna corridor
    - construction continued on the Morinville Sewage Transmission System, which is expected to be completed in 1989 and connected to the Capital Region Sewage System.

- **Northern Supplementary Fund**
  - under this program, northern communities within the jurisdiction of the Northern Alberta Development Council, are eligible to receive grants for water and wastewater works. This program is limited to northern communities where, even with local revenues and other sources of funding, the costs of constructing adequate water and sewage facilities are far in excess of the provincial norm
  - during 1988/89 seven projects were approved for funding. Total grant expenditures were $2 million.

- **Utilities Officer Program**
  - this program provides grants to municipal districts, counties, improvement districts, and special areas to assist with the cost of making the services of a knowledgeable individual available to facilitate the organization, development, and regulation of utilities within their jurisdictional area. The utilities officer is available for advice and assistance to ratepayers and to assist the municipality with the establishment and administration of regulations for all types of utilities. Up to $25 000 is available to rural municipal authorities each year through the program
  - in 1988/89, 59 grants were approved for a total expenditure of $1.5 million.

- **Road Grants to Counties and Municipal Districts**
  - the program provides grants to 30 counties and 22 municipal districts for local road construction, upgrading projects and related works
  - during 1988/89, $29 million in grants were provided under the following four major sub programs:

Regular Road Grants	$ 24 637 217
Dust Control Grants	2 497 998
Hamlet Streets Assistance Grants	745 992
Special/Discretionary Grants	824 875
	$ 28 706 082

- **Special Areas Grants**
  - Alberta Municipal Affairs is the road authority for Special Areas. Forces under the direction of the Special Areas Board undertake road construction. This grant is based upon a formula which takes into account road mileage, population, terrain factors of the region and equalized assessment
  - a regular grant of $1 482 000 was provided to the Special Areas Board to assist with required capital road construction projects within Special Areas 2, 3 and 4. In addition a dust control grant of $100 000 was provided for priority dust control projects.

- **Engineering Assistance Program**
  - this grant is used by municipalities to engage private engineering consultants or to cover engineering services provided by Alberta Transportation and Utilities. The amount allocated to all counties, municipal districts and special areas is based on the level of regular road grant
  - during 1988/89, $733 000 was provided to these eligible rural municipalities.

- **Streets Assistance Program**
  - the program provides per capita grants to towns, villages and summer villages to assist with the construction of their capital roadway projects
  - in 1988/89, $7 000 000 was provided to eligible municipalities
  - the Streets Assistance Program ended March 31, 1989, to be replaced by the Streets Improvement Program on April 1, 1989.

- **Public Transportation Operating Assistance Grant**
  - the program provides assistance for senior citizens, the disabled and the handicapped in the development of specialized transportation services and/or, the subsidization or upgrading of the existing transportation services in a municipality
  - effective in 1988/89, the $2.94 per capita grant funding was transferred to Alberta Municipal Affairs to be distributed within the Alberta Partnership Transfer Program
  - in 1988/89, $2 191 949 in grants was provided to Alberta towns, villages, counties, municipal districts, improvement districts and special areas.

Urban Transportation Branch

The Urban Transportation Branch is responsible for the efficient and effective delivery of the Urban Transportation Program. Staff provide technical, financial and advisory services to the province's 17 urban centres. Staff liaise closely with city councils and administrations to ensure that the program meets the cities' road priorities and that the projects undertaken with program funds are consistent with the department's overall transportation system. This program and the services provided by this branch are a vital link with the department's Primary Highway and Secondary Highway Programs.

During the reporting period Urban Transportation Branch was responsible for allocating approximately $120 million to Alberta cities under the Urban Transportation Program. This program is designed to provide assistance to cities for capital and operating costs incurred in the development and operation of effective roadway and public transit systems. This year was a one year extension of the three year program which became effective on April 1, 1985. Sixteen cities and the County of Strathcona (Sherwood Park) received urban transportation assistance in the 1988/89 fiscal year. The total grants provided to each jurisdiction were as follows:

Airdrie	$ 112 700
Calgary	46 953 795
Camrose	123 734
Drumheller	711 693
Edmonton	42 171 828
Fort McMurray	1 463 880
Fort Saskatchewan	856 666
Grande Prairie	2 688 152
Leduc	852 792
Lethbridge	825 376
Lloydminster	701 996
Medicine Hat	660 456
Red Deer	15 485 609
Spruce Grove	799 290
St. Albert	2 536 003
Wetaskiwin	672 908
County of Strathcona (Sherwood Park)	2 208 690
	$ 119 825 568
Multi-jurisdictional projects	112 739
	$ 119 938 307

Details of grants made during 1988/89 for each of the four grant types available under the Urban Transportation Program are outlined in the following section:

Basic Capital Program

This program provides capital grants to support the development of roadway and public transit components of the cities' transportation systems. The government provides 75 per cent assistance for eligible capital projects up to a maximum of $60 per capita per year to each city. Grants provided during 1988/89 are as follows:

Calgary	$ 38 837 100
Drumheller	658 107
Edmonton	34 574 940
Fort McMurray	950 000
Fort Saskatchewan	718 980
Grande Prairie	2 323 260
Leduc	787 560
Lloydminster	612 060
Red Deer	3 258 540
Spruce Grove	715 080
St. Albert	2 076 328
Wetaskiwin	606 180
County of Strathcona (Sherwood Park)	1 872 300
	$ 87 990 435
Multi-jurisdictional projects	112 739
	$ 88 103 174

Major Continuous Corridors and Primary Highway Connectors Program

As an incentive to ensure continuity of a high standard primary highway system through urban areas, the government contributed 90 per cent of the cost of construction of one high-standard, efficient route through each eligible city which connects to the provincial highway system. During 1988/89, the following funding was provided:

Edmonton (Yellowhead Trail at 82 Street Interchange)	$ 225 000
Red Deer (Railway Relocation/ Major Roadway Project)	11 480 000
	$ 11 705 000

Public Transit Operating Program

Municipalities with a provincially approved conventional public transit system received $7.84 per capita plus $2.94 per capita for transportation of senior citizens and the disabled. During 1988/89, the following funding was provided:

Airdrie	$ 112 770
Calgary	6 977 732
Camrose	38 126
Drumheller	18 716
Edmonton	6 211 964
Fort McMurray	376 750
Fort Saskatchewan	35 230
Grande Prairie	285 357
Leduc	38 590
Lethbridge	653 376
Lloydminster	29 991
Medicine Hat	450 647
Red Deer	585 451
Spruce Grove	35 039
St. Albert	398 946
Wetaskiwin	29 703
County of Strathcona (Sherwood Park)	336 390
	$ 16 614 778

Primary Highway Maintenance Program

These grants are provided to assist in the maintenance of primary provincial highway routes within the cities. During the reporting period the provincial contribution was $1959 per lane-kilometre of eligible roadway.

Calgary	$ 1 138 963
Camrose	85 608
Drumheller	34 870
Edmonton	1 159 924
Fort McMurray	137 130
Fort Saskatchewan	102 456
Grande Prairie	79 535
Leduc	26 642
Lethbridge	172 000
Lloydminster	59 945
Medicine Hat	209 809
Red Deer	161 618
Spruce Grove	49 171
St. Albert	60 729
Wetaskiwin	37 025
	$ 3 515 425

Summary

As depicted by the above grant listings, Basic Capital is the most significant program component of the Urban Transportation Program. As shown in Figure 1, Basic Capital accounts for 73 per cent of total program funding. Figure 2 shows how Alberta's cities utilized the Basic Capital grants among roadway construction, transit capital, pavement overlay or rehabilitation-type projects and other projects such as transportation systems management and research and development.

URBAN TRANSPORTATION GRANTS 1988/89

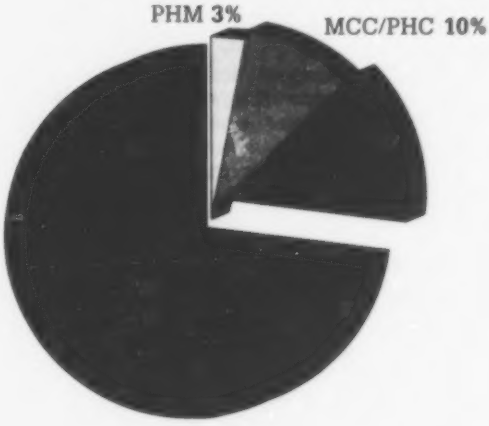


FIGURE 1

UTILIZATION OF BASIC CAPITAL GRANTS 1988/89

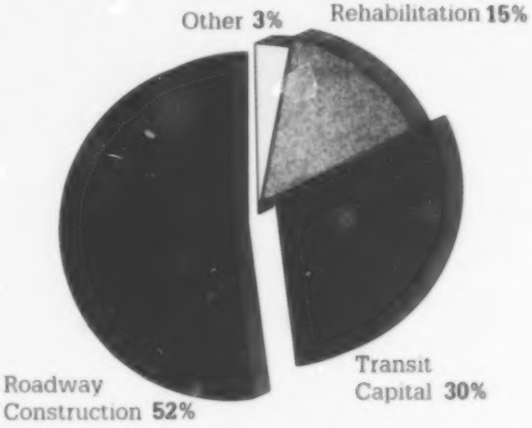


FIGURE 2

Utility Services was created on April 1, 1988 as a result of the departmental reorganization. All of the department's grant, rebate and loan programs to individual Albertans have now been combined under one umbrella. As well the new Small Power Research and Development Program was formed and became the responsibility of Utility Services.

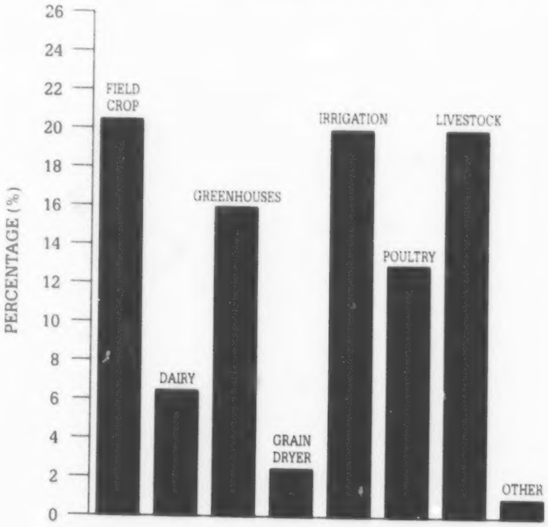
The responsibilities of Utility Services encompass some very diverse programs and activities. The responsible branches or sections and the applicable programs are identified as follows.

Rebates

During the 1988/89 fiscal year, Rebates administered the following four rebate programs, which reduce the cost of fuel used in home heating, farming, small business and other select purposes. Indicative from letters and comments received from recipients, the programs are well received and are effective in reducing the costs of heating fuels for Albertans.

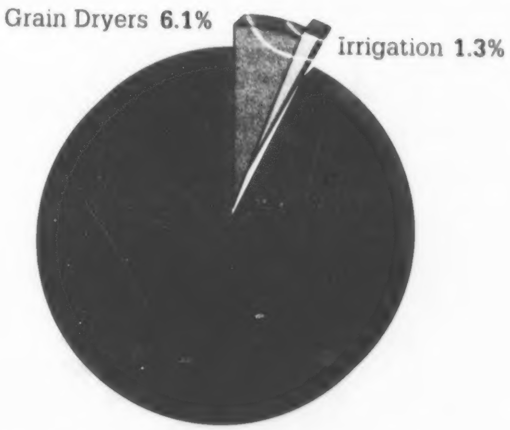
- **Primary Agricultural Producers Rebate Program**
  - rebates under this program are available to consumers who use natural gas in primary agricultural production. Examples of eligible operations include field crops, livestock, dairy and poultry farms, greenhouses (including ornamental), irrigation, grain dryers, sod and peat moss farms and alfalfa processors
  - the program was extended during 1988 for a three year term and is currently set to expire on December 31, 1990
  - during 1988/89, 3067 applications were processed resulting in rebate payments totalling $2 144 943, an average of $700 per application.

REBATE PAYMENTS BY TYPE OF USE



- **Remote Area Heating Allowance Program**
  - residential, farm, community and small business consumers are eligible for this rebate if they use heating oil or propane because natural gas service is not economically available. The program reduces the cost of these heating fuels by up to 25 per cent
  - the program was extended during 1988 for a three year term and is currently set to expire on December 31, 1990
  - over 28 500 Albertans have benefited from this program since its introduction in 1980. Many residents in rural areas received rebates under this program while natural gas lines were being extended to their locations through the Rural Gas Program
  - during the year 6119 applications were processed. Rebates totalled $1 438 101 for an average of $235 per application.

REBATE PAYMENTS BY TYPE OF USE



- **Senior Citizens Home Heating Protection Plan**
  - senior citizen homeowners receive $100 annually through this program to help with home heating costs regardless of the type of fuel used. Most households are mailed a cheque automatically without the need for completing an application. The rebate is also provided to widows and widowers 55 years of age or over who are receiving a pension under the Alberta Widows' Pension Act
  - the program was extended during 1988 for a three year term and is currently set to expire on December 31, 1990
  - during 1988/89, 98 440 Alberta seniors received $100 rebates in respect of their heating costs for the 1988 calendar year.

- **Propane/Fuel Oil Tank Grant Program**
  - this ongoing program is available to rural residents who use propane or heating oil for home heating because natural gas is not economically available. Grants are provided to cover 40 per cent of the cost of installing and/or purchasing or renting a fuel tank up to a maximum of $500 in a lifetime
  - during the year 1988/89, 348 rural residents received grants totalling $53 234.

Rural Electric

Rural Electric administers the following rural electrification loan and grant programs which assist in providing electric services to rural Albertans. The branch director fulfills the statutory duties of the Director of Rural Electrification Associations (REA's) as provided by the Rural Utilities Act. As well the branch maintains responsibility for the Small Power Research and Development Program.

- **Rural Electrification Program - Lending Activities**

  Low-interest (Part One) and interest-free (Part Two) loans are made from the Rural Electrification Revolving Fund for new farm electrical services and REA capital rebuild. Highlights of the loan program during 1988/89 are as follows:

  - for new farm electrical services, 1384 loans were processed, totalling $5 422 266. There were also 18 loans totalling $53 011 that were refinanced
  - loans of $4 054 996 were made for new electrical services which carry fixed repayment schedules and bear interest at three and one-half per cent. These (Part One) loans are secured by a lien on the farm property. The balance of $1 367 270 was non-interest bearing (Part Two) loans made to help reduce the cost of the more expensive electrical services for farmers. Repayment of Part Two loans is contingent on additional services being connected to the facilities that benefited from these interest-free funds
  - forty-five Part Two loans totalling $820 783 were also issued for REA capital rebuild. The REA Capital Rebuild Program provides for REA's to borrow up to 30 per cent of their rebuild and system improvement requirements. These loans which are interest-free and secured by a charge against the works of the REA are repayable over a maximum term of 25 years. This facilitates REA financing their rebuild investment over the life of the facilities rather than collecting membership levies in advance. It reduces the cost of rebuild for REA members and enables REA's to look to the future with greater financial certainty
  - payments on outstanding loans during the year totalled $5 017 669. Of this total, $3 841 172 was repaid principal credited back to the Rural Electrification Revolving Fund and $1 176 497 represented interest earned for deposit to the province's General Revenue Fund
  - the Rural Electrification Revolving Fund held $64 004 944 in loans outstanding to farmers and REA's at year end. The fund's statutory limit is $75 000 000.

Rural Electrification Revolving Fund
Financial Reports & Summaries 1988/89 Cash Basis
(Unaudited)
Fiscal Year Ending March 31, 1989

Table 1
Comparative Loan Balances
Loans Receivable at Year End

Repayment Schedule	March 31, 1989	March 31, 1988
10 Year	$ 4 738 812	$ 4 854 804
25 Year	29 932 768	29 072 335
Part Two Loans	28 063 277	27 121 492
Part Two Capital Rebuild	1 270 087	496 119
Total All Loans	$ 64 004 944	$ 61 544 750

Table 2
Loans Issued

Loans Advanced	Fiscal 1988/89	Fiscal 1987/88
Term:		
10 Year	$ 933 270	$ 837 459
25 Year	3 174 737	3 621 832
Part Two	1 367 270	1 738 756
Capital Rebuild	820 783	507 510
Total Loans	$ 6 296 060	$ 6 705 557
Type		
Loans for New Construction	$ 5 422 266 *	$ 6 096 542 *
Capital Rebuild Loans	820 783	507 510
Refinancing	53 011	101 504
Total Loans	$ 6 296 060	$ 6 705 556
* New Construction:		
Part One		
- Individual Lien Notes	$ 4 054 996	$ 4 357 786
Part Two Loans	1 367 270	1 738 756
Total New Construction Financed	$ 5 422 266 *	$ 6 096 542 *

Table 3
Receipts & Adjustments

Fiscal	1988/89	Fiscal 1987/88
10 Year Loans Principal	$ 1 049 262	$ 1 097 264
25 Year Loans Principal	2 314 304	2 244 958
Part Two Loans Principal	430 792	513 498
Capital Rebuild Loans Principal	46 814	11 392
10 Year Loans Interest	167 810	179 205
25 Year Loans Interest	1 008 687	965 000
Net Receipts and Adjustments	$ 5 017 669	$ 5 011 317
Total Principal	$ 3 841 172	$ 3 867 112
Total Interest	$ 1 176 497	$ 1 144 205
Net Receipts and Adjustments	$ 5 017 669	$ 5 011 317

Table 4
Analysis of Loans Advanced
1988/89

	REA Loans		Loans to Individuals		Total	
	No	Advanced	No	Advanced	No	Advanced
10 Year Loans						
Traditional Loans	161	$ 561 437	142	$ 348 853	303	$ 910 290
Over 25 kV.A	—	—	—	—	—	—
Three-Phase	—	—	5	22 979	5	22 980
Total 10 Year	161	$ 561 437	147	$ 371 832	308	$ 933 270
25 Year Loans						
Traditional Loans	390	$ 1 566 885	226	$ 842 015	616	$ 2 408 900
Over 25 kV.A	1	7 555	—	—	1	7 555
Three-Phase	5	43 692	115	714 591	120	758 282
	396	$ 1 618 132	341	$ 1 556 606	737	$ 3 174 737
Part Two Loans						
Traditional Loans	171	$ 454 528	107	$ 404 951	278	$ 859 479
Over 25 kV.A	1	7 655	—	—	1	7 655
Three-Phase	4	37 435	74	462 701	78	500 136
Capital Rebuild	45	820 783	—	—	45	820 783
Total Part Two	221	$ 1 320 401	181	$ 867 652	402	$ 2 188 053
Total Loans	778	$ 3 499 970	669	$ 2 796 090	1 447	$ 6 296 060

- **Rural Electrification Program - Grant Activities**

  Grants are also available to Albertans to assist with rural electrification.

- **Isolated Communities Program**
  - through this program, grants are available for new residential and farm electrical services to assist in the orderly development of Metis settlements and selected isolated areas
  - a total of $251 106 was provided to seven Metis settlements and $68 800 was issued for electrical services in other areas of northern Alberta.

- **Other Grants**
  - the balance of a loan, bearing interest at three and one-half per cent issued to the Alberta Federation of Rural Electrification Associations was forgiven by way of a grant in the amount of $42 978.
  - a $5000 grant was provided to the Alberta Federation of REA's to help reduce expenses of members attending the federation's annual conference.

- **Small Power Research and Development Program**
  - the Small Power Research and Development Program commenced October 1, 1988 and is expected to run until 125 megawatts (MW) of eligible small projects are interconnected to the system or December 31, 1994, whichever comes first
  - the purpose of the program is to facilitate the generation of electricity through small projects using renewable resources and to monitor small power production. The program will enable government to assess the contribution that small power production can make in the long term
  - at March 31, 1989, 37 applications representing an allocation of 158 707 MW were received. Approved applications were allocated as follows:

Wind	23 082 MW
Hydro	49 700 MW
Biomass	38 125 MW
	110 907 MW

A grant of $27 000 was provided to assist the Small Power Producers Association of Alberta in its participation in the Small Power Inquiry, conducted by the Energy Resources Conservation Board and Public Utilities Board.

Rural Water

Rural Water administers the Alberta Farm Water Grant Program by providing technical advisory services and financial assistance to individuals and groups of farmers requiring permanent, secure water transmission systems.

- **Alberta Farm Water Grant Program**
  - the Alberta Farm Water Grant Program provides financial and technical support to individual and group projects to develop water transmission systems throughout rural Alberta. Since its inception in 1985, the program has served over 5000 farms through individual and group projects
  - much of the heavy program demand experienced throughout the province during the year was stimulated by drought related conditions and the Drought Assistance Programs of Alberta Agriculture and Alberta Environment, responded to these conditions. Considerable effort was required to co-ordinate the Alberta Farm Water Grant Program with these programs as well as taking full advantage of opportunities for co-funding of group projects, with Prairie Farm Rehabilitation Administration
  - the program was extended effective April 1, 1988 for a three year term.

Details of the 1988/89 fiscal year payments are as follows:

Individual Projects

• number of projects approved/farms served	282
• total grant dollars provided	$ 2 646 003

Group Projects

The following list of group projects were approved during the 1988/89 fiscal year and illustrates the concentration of drought stimulated demand in the southern part of the province during the year.

Group Name	Location	Farm Units Served	Grants Paid
Bruderheim Water Co-op Ltd	Bruderheim	19	$ 139 762
Champion West Water Co-op Ltd	Champion	24	178 060
CLV Water Co-op Ltd	Drumheller	27	522 750
DeWinton Water Co-op Ltd	Calgary	8	161 500
East Grimshaw Rural Water Co-op Ltd.	Grimshaw	50	307 750
East Irrigation District	Brooks	40	22 000
Fortymile Grazing Association	Bow Island	45	47 260
Golden Meadow Water Users Ltd	Fairview	14	390 345
Magrath North East Water Co-op Ltd	Magrath	17	190 969
Magrath West Water Co-op Ltd	Magrath	19	280 359
Milk River West	Milk River	35	306 335
Mine Road Water Co-op Ltd	Champion	41	271 931
North Milk River Water Co-op Ltd	Milk River	17	93 134
North Starline Water Co-op Ltd	Claresholm	7	50 200
North Sturgeon Water System Association	St. Albert	3	52 900
Pointe-Aux-Pins Water Co-op Ltd	Ardrossan	9	128 583
Warner Group (West)	Warner	46	413 505
Whitemud Water Co-op Ltd	South Edmonton	35	380 832
Whitla Water Co-op Ltd	Bow Island	11	215 822
		467	$ 4 153 997

PUBLIC COMMUNICATIONS

D. Nicol
Director

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Public Communications Branch

During the 1988/89 fiscal period, Public Communications activities included the planning and implementation of traffic safety awareness print advertising campaigns, as well as the first-time production of an impaired driving movie commercial, "The End of the Road". A provincewide display schedule was also organized, several news conferences and special events were co-ordinated, and a wide range of print materials were produced for the department.

The department's display schedule was featured primarily over the summer months, and was supported by audio-visual productions and computer safety games, as well as by the department "Freeway" bear mascot and related promotional items. Principal theme of the displays was the role played by staff in delivering department programs to both municipalities and individuals in Alberta.

The department mascot was also featured for the first time at a new Christmas parade in downtown Edmonton.

More than 550 regular news releases were prepared and distributed to the province's media. The department's internal staff newsletter was produced bi-monthly throughout the year, and a regular daily news clipping service was again provided to senior staff. The branch also took an active role in co-ordinating events to celebrate National Transportation Week in June.

Throughout the year, assistance was provided on different internal communications initiatives, including media awareness courses for department staff. Branch staff also consulted with individual managers in the preparation and implementation of communications initiatives in support of specific department programs.